Week ending November 24 1956 *Every Wednesday Fourpence*

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Begins inside: 'NO NAME ON THE DOOR'

The man who taught women how to shop

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by NORMAN WISDOM

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TEMPLE BAR 2468 NOVEMBER 24, 1956 VOLUME 100 NUMBER 2630

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SCIENCE, SPACE AND THE FUTURE — 29-36

REPORT FROM THE EDITOR

Harry Williams helped to teach Britain how to shop

ON a hot summer's afternoon in 1910, a young man of twenty-one slipped half a crown into the hand of a London theatre stage-doorkeeper and entered the dressing-room of a star dancer. "How would you like a new hat or a new dress?" he began. The dancer, exhausted after the matinée show, was in no mood to banter with bright young men, and angrily ordered him out. He went meekly, but made sure that he left his card.

Three days later he received a letter written in violet ink on perfumed paper. The dancer apologized. She got her hat and dress, swathed in ribbons, and was pictured wearing them in the magazines. And young Alfred Harry Williams got the publicity he wanted—he was acting for a firm which was promoting the use of ribbon in women's clothes.

Four years later, Williams, one of the first publicity men in Britain, joined Selfridge's store in Oxford Street, London, and became the firm's advertising director. For twenty years he worked with Harry Gordon Selfridge, the man who built the store and changed the shopping habits of Britain's women. His biography of Selfridge, *No Name On The Door*, begins on page 14.

Williams, the youngest of eleven children, was born in Islington ("within the sound of Bow Bells if the wind's in the right direction") and went to work before he was fourteen, earning 8s. a week as an office boy. As a director of Selfridge's he was earning more than a Cabinet Minister. Today he is publicity adviser to a group of Kensington stores. "I don't believe in retiring," he says.

WHILE Russian tanks were shelling Budapest to defeat the Hungarian rebels early this month, a message was sent from the British Legation naming journalists and university men who were sheltering there. The list included the name "Wiles, New College, Oxford." It was the first news Mrs. Elizabeth Wiles had received for many days of the safety of her husband.

Peter John de la Fosse Wiles, who on page 19 writes on Soviet industry, has always endeavoured to seek facts for himself. A fellow of New College and a university lecturer in economics, he has made a close study of Soviet Russia. His knowledge of the Russian language has enabled him, when he has been shown round Soviet factories, to question workers without having to rely on an interpreter.

Earlier this year, Wiles, who is thirty-six, went to Poland for the Poznan Trade Fair and was in the city when riots broke out. Later he attended the Council of Europe meeting in Strasbourg; when the first news flashes came through of fighting in Hungary he travelled to Budapest to get his own evidence of the struggle of the Hungarian people for freedom.

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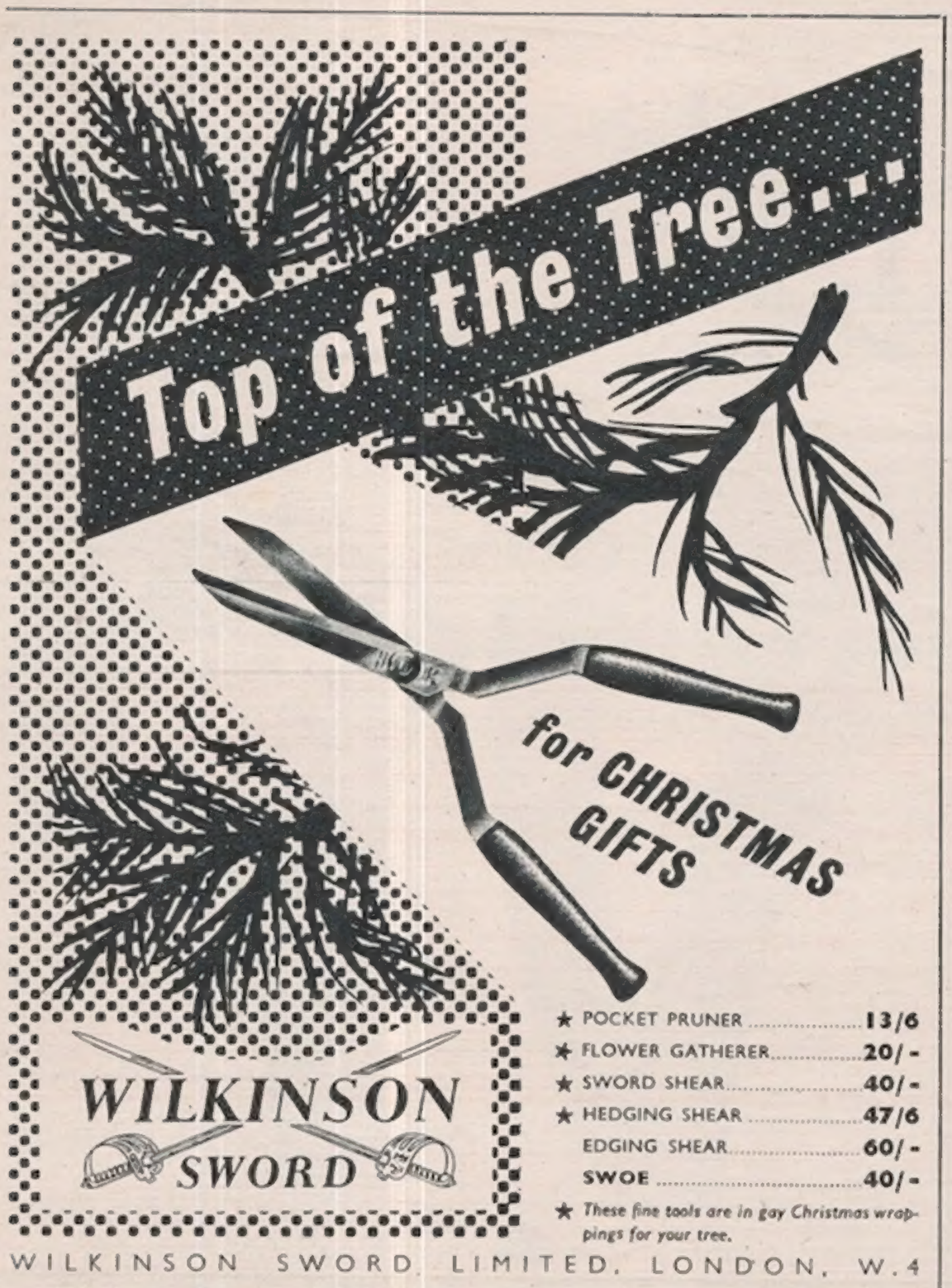

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Free Speech

- **Imagination puts life into stones**
- **Three cheers for His Worship**
- **Wives who cannot make ends meet**

I WAS a child in the 1890s—one of eight. They were large families in those days, and my father, a highly skilled cabinet maker, earned 30s. a week, which was considered good pay.

The most expensive toy we ever had was a 4½d. doll at Christmas. For toys, we usually collected up all the stones after we had eaten fruit, then washed them and shared them out. We would spend hours round the table with these stones as soldiers. Imagination gave them life and we kept them for years, adding to them.

But we were as happy as could be—more so, I think, than the children of today, who seem to have all they want.—MRS. G. M. WRIGHT, Hounslow, Middlesex.

"Most youngsters have a lively imaginative approach to play," says an expert in child psychology. "This development of the imagination is much more important than the immediate objects they choose for play; in fact, it has sometimes been argued that there is more satisfaction in household articles than in the more elaborate and expensive toys which leave no scope for imagination."

Screen Shy

Patricia Bourne wrote that her lions objected to shining, new chromium stools ("I Prefer Lions," JOHN BULL, November 3).

In my experience, this dislike on the part of animals to anything strange in familiar surroundings is not at all unusual. When we had a television set installed it took three days to persuade our cats to enter the room while it was on.—M. L. C., Kent.

Tell The Police

My daughter was recently involved in an accident. I was surprised to be told that, provided nobody is seriously hurt and the parties involved agree, there is no obligation for either party to report the accident to the police.

But I always thought that every road accident, serious or otherwise, had to be reported to the nearest police station.—S. S. M., Newtonmore.

S. S. M. is correct. The Road Traffic Act 1930 says that any driver involved in an accident must stop and give particulars to the police or anybody having reasonable grounds for requiring them. The accident, whether there is injury or not, must be reported to the police as soon as practicable, and in any case within twenty-four hours.

More Local Pride

I recently visited a friend in a northern town which was made a borough some time ago. She said she had been astonished by the effect of this. At first there was a great deal of criticism of the idea of spending money on the mayor's regalia, and various other expenses. But now there has been a great heightening in local pride and an interest in the town's affairs, which did not seem to attract much attention before.

But my town—an urban district—applied for its charter and was turned down. Why, if it makes people more civic conscious at a time when local affairs don't awaken much interest?—L. B., Hertfordshire.

Although no specific qualifications for borough status are laid down, the decision rests with the Privy Council in consultation with the Queen, and signs that a town is worthy of the honour are looked for.

There are more than 1,400 local authorities in England and Wales, of which 318 are municipal boroughs and twenty-eight are metropolitan boroughs. The City of London, a special case, is also a borough.

Starlight Special

Because a train was fifteen minutes late three people I know missed their connection and faced an all-night wait on Hatfield Station platform recently.

But British Railways atoned for their sins admirably. They put on a special train, just for these three people. It took them to New Barnet Station, eight miles away.—D. R., Potters Bar, Middlesex.

"If passengers are stranded through any fault of ours, then we do what we can to see them home, depending on the circumstances and the transport available," says British Railways. "Sometimes we use a bus or taxi, but it is up to the region concerned, and sometimes the station-master."

Sense Of Proportion

It is sad to hear women say that they don't know what their husbands earn, that they cannot make ends meet and that they feel sure their husbands spend more on themselves than they do on housekeeping.

If these men didn't mean it when

they said: "With all my worldly goods I thee endow," they should have amended it to "two-thirds . . ." or "half my worldly goods. . . ." At least the wife would know in advance what she was in for and would then have only herself to blame.—MRS. D. NICHOL, Middlesbrough.

Outline Application

During our recent visit to Switzerland, my wife and I sometimes noticed strange-looking wooden poles with crosspieces at the top. These varied in height from twenty to thirty feet and didn't appear to be erected in any definite design.

The hotel proprietor said that these poles represented the extent of a house which was to be built. Apparently, before a house can go up in Switzerland, the owner-to-be has to show by these means just what space the house will take up on the ground and in the air. If the building is likely to impinge on anybody's rights, objection can be made in time.—F. L. WATKINS, Rugeley, Staffs.

Being Prepared

From time to time quite small boys and girls ring my front-door bell and offer to do jobs for a shilling. I have never given them any jobs to do because, frankly, I am scared of what my position would be in law should any of them meet with an accident or injury while doing the job. I

CONTINUED ON PAGE 6

1. 'Commodore' Pressure Cooker with Separators **123/6**
2. Prestige 'Hi-Dome' Pressure Cooker with Separators **135/-**
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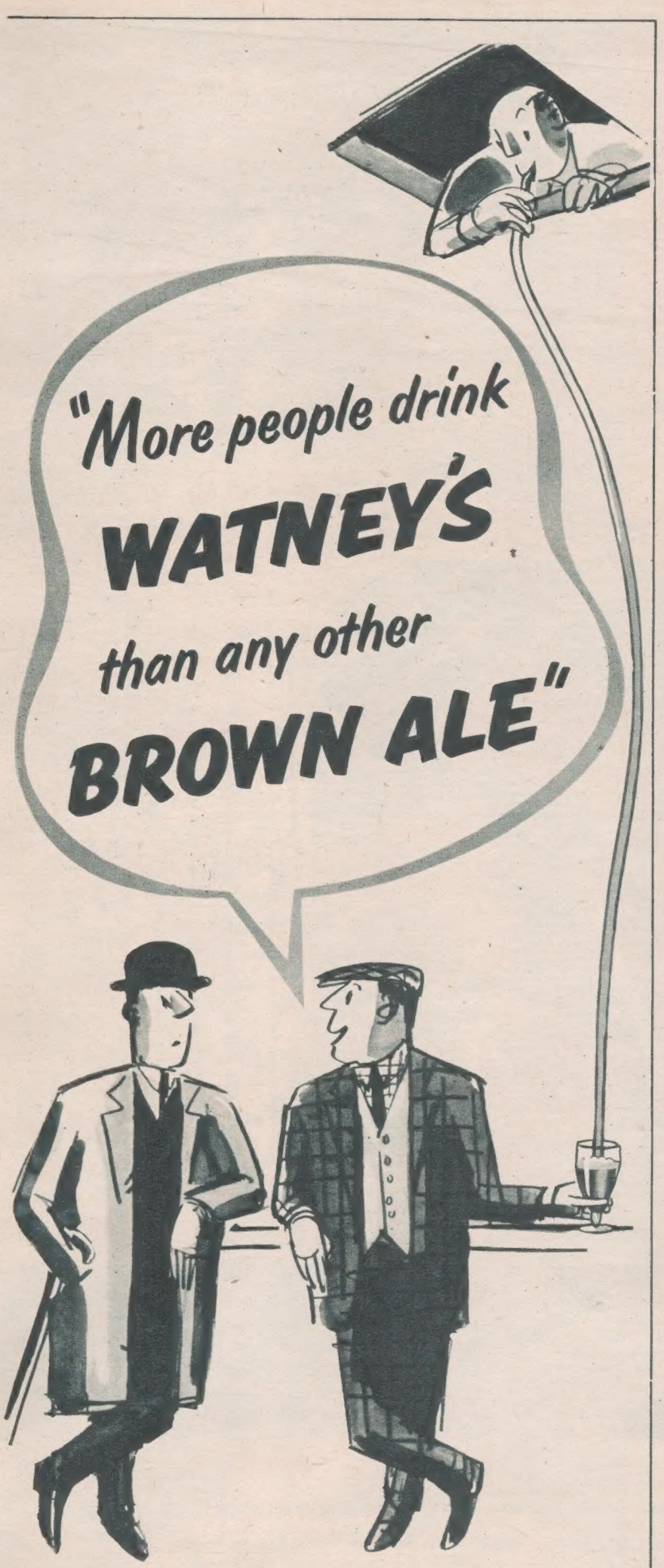

Free Speech

CONTINUED FROM PAGE 4

think we should be reassured by the people who send these children out.—J. W. BIRD, Westcliff-on-Sea, Essex.

"We don't send our members round asking for jobs on our behalf at any time except Bob-a-Job Week," says the Boy Scouts' Association. "They are covered by insurance for all normal Scouting activities, of which Bob-a-Job Week is one, and no liability would rest on members of the public."

Back At School

A retired business man I know has gone "back to school"—he is rejuvenating his mind with a systematic course of self-tuition in algebra, physics, Latin and other subjects that he had to drop at the age of sixteen.

Psychologists have shown that the fact of having studied a subject makes the subject easier to tackle later in life—even after a lapse of fifty years when it has been apparently forgotten.—H. COHEN, Alkham Road, London, N.16.

Exotic Names

During the war I was evacuated to a farm in the West Country, and was fascinated to hear the picturesque names by which the farmer referred to his fields. There was Savages Hill, Lord's Ground, Far-long Ground, Prince's Meadow and Garsides. No one could tell me how the names originated. — K. RICHMOND, Ealing.

"A lot of field names, particularly unusual ones, go back several centuries," says the National Farmers' Union. "Sometimes they were called after places, or former owners. Farmers today, however, naming a field for the first time, usually refer to it by size in acres."

Hazy Impression

There is a widespread belief in Germany that nearly all Englishmen smoke pipes all the time.

Recently I saw one of J. B. Priestley's plays, produced by the Bremen Stadt Theatre and performed by a German cast. Of the five English male characters four were smoking

pipes almost continuously. As they were obviously inexperienced pipe-smokers there was a great deal of relighting, coughing and spluttering. There was a constant haze of smoke hung over the stage—thereby presumably producing a typically English atmosphere. — H. L. C., Bremen, Germany.

Case Of Perjury?

I often visit the local court and sit in the public gallery.

I notice that many people plead not guilty to a summons or charge which is subsequently found proved. But in this event, shouldn't the defendant later be charged with perjury? For, in deciding that a man is guilty—although he pleads otherwise—a magistrate has, in effect, proved that his evidence was false.—P. W., Macclesfield.

"When a defendant pleads not guilty and the court finds him guilty, all that has happened is that the court has not believed the man's story," says a lawyer. "By denying a charge in his own defence, a man is only challenging the prosecution to prove its case—which, under British law, he is entitled to do."

One For The Road

Many a stranded motorist gets home after closing time, thanks to the "help yourself" invitation displayed outside a countryside petrol station near here.

When I took this picture I was

assured by the proprietor that hardly anyone has failed to pay for that priceless gallon.—VIC LEWIS, Bromham, Chippenham, Wilts.

Caption Comfort

Why, in Continental films shown in Britain, are English sub-titles put at the *bottom* of the screen, causing the audience to crane their necks and dodge from side to side in an effort to read them? I should have thought it more sensible to put sub-titles at the top; certainly it would save everybody from uncomfortable evenings.—M. BEACH, Hove, Sussex.

"A caption more than a line long may obscure part of the film, in which case it is more preferable to cover players' feet than their heads," says an expert. "And, more important, captions at the top would not show up at all against the bright sky of outside scenes."

Meeting Von Werra

I was a prisoner of war in Posen, Poland, at the time of the events in your series, "The One That Got Away."

The German camp commandant brought von Werra into the camp and introduced him to me. He was a typical Luftwaffe officer and I was interested to meet him.

Von Werra was, in fact, partly responsible for our finding ourselves where we were. Some German officers were being taken to Banff Springs Hotel, Canada, which was to be a permanent camp, and they were lodged, in transit, in an old fort near Winnipeg. As is usual with p.o.w.s, they complained bitterly about their treatment, and when the German Government heard about it they took reprisals—four hundred of us were sent to an underground fort on the outskirts of Posen.

I asked von Werra about his experiences, and the conditions at Winnipeg, and he agreed that they were not as uncomfortable as those we had in Posen. He couldn't do anything about it, of course, but I always feel the conversation made the camp commandant revise his views, because after that he seemed to do what he could to improve our conditions.—MAJOR W. DAVID ROSS, Heatherquoy, Kirkwall, Orkney.

. . . "How would the Luftwaffe treat an R.A.F. prisoner caught trying to get away in a Messerschmitt?" is a question posed in "The One That Got Away" (November 3).

When we were prisoners in Poland, two Canadian R.A.F. officers and I, a flight lieutenant, were caught disguised in Luftwaffe uniform on a German aerodrome at Therun, after trying to fly to Sweden in a Messerschmitt.

We had evaded our guards and

CONTINUED ON PAGE 8

Greetings
WILLS'S CAPSTAN
WILLS'S CAPSTAN CIGARETTES
50 WILLS'S CAPSTAN CIGARETTES 50
50 for 9/7
100 for 19/2
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Free Speech

CONTINUED FROM PAGE 6

after changing in an air-raid shelter walked down to the hangars, on the way exchanging salutes with German officers. We picked our aircraft, and I spent a long time in the cockpit vainly trying to start the engines. We returned to the landing area and decided to seize by force the next aircraft that landed, with its engines still running. But we were spotted from the control tower in doing so.

I was put into a cell in the moat of an ancient fort without light, windows, bed or furniture, and with just straw, rats and lice for company, and a diet of black bread and potato soup.

After unsuccessful interrogation to try to make us incriminate British orderlies, the Germans sent me to Colditz as a hardened enemy of the Reich.—FRANCIS FLINN, St. Helens, Lancs.

Dangerous Doses

In "Can We Trust The Atom?" (JOHN BULL, November 3), Dr. P. E. Hodgson says that Czech miners in Joachimsthal, and certain other workers, have suffered from cancer of the lungs through inhaling radio-active dust.

This puzzles me, because radium and other radio-active substances are used in attempts to cure cancer.—R. J. CHESTER, Clitheroe, Lancs.

"Many medicines used to cure symptoms are poisonous in large doses, but it depends on the exact dose," says a doctor. "Small doses of radio-active materials may stimulate the formation of a cancer, while large doses can be used to kill cancer cells."

Not So Dim

On a recent coach tour of the Scottish border country, I saw a remarkable illustration of the intelligence of animals not usually credited with it.

The coach stopped so that we could admire a waterfall which was situated between hills on which sheep were grazing. When the coach stopped they came running down and surrounded the passengers.

The driver took some bread from his pocket and distributed it to the passengers. The sheep were not at all timid, but even nosed in our pockets for more.—W. J. DOWNIE, Acton, London, W.3.

Staff Of Life

The notice seen in a Stirling snack bar ("Free Speech," November 3) reminds me of this one which appeared in a Birmingham restaurant: "Please be courteous to the waitress. We can get new customers, but we can't get new staff."—PHILIP SUTCLIFFE, Brixham, Devon.

No Truck With It

Not long ago, a large business organization tried out a scheme under which its factory employees were paid their weekly wages by cheque. This was welcomed by the workers, and it operated quite smoothly for some time. Then it was pointed out to the management that it risked being prosecuted under the Truck Act, and the scheme was withdrawn.

This Act was originally drafted in 1831, when lodgings, laundry, dinner and tea were often regarded as part of wages, in order to ensure that workers were paid in the current coin of the realm. But paying by cheque has many advantages. The Truck Act should be rescinded.—W. KEESE, South Benfleet, Essex.

"The fear of prosecution was, in fact, groundless," says a lawyer. "The Truck Act of 1831, which is still law, provided for payment by bank notes, or cheques on banks within fifteen miles of the place of payment, if a worker freely consents to it."

The Aftermath

Our decorator was just leaving, and we were complaining about the smell of paint. Because of the cold weather, we were not able to leave the doors and windows open. The decorator suggested putting dried grass—or real hay, if possible—into a bucket of water in the centre of the room. We did so and were delighted to find that the paint smell quickly disappeared. — D. SKINNER, Wolston, Southampton.

"This can be effective in varying degrees and depending on the strength of the smell," says an expert. "Another method is to boil onions in the room—but then there is the question of removing the onion smell!"

Certain Cures

As a schoolmaster, I often have to deal with hiccoughs ("Free Speech," October 27).

My first "case" was a doctor's daughter. I told her to place a small quantity of salt on the palm of her *left* hand, and lick it off. She did so and the hiccoughs disappeared. This always works.—R. S., Swansea, Glam.

. . . On my way to the surgery, a chemist told me to eat two or three bananas slowly. I did. My hiccoughs went, and I went back home.—A. J. WOOD, Brierley Hill, Staffs.

. . . I find that breathing in and out of a paper bag several times is an infallible cure.—J. B., Nantwich, Cheshire.

. . . Hold the breath for as long as you can.—L. J., Swindon, Wilts.

. . . The traditional cure of taking nine sips of cold water never fails for me. — M. S., Saffron Walden, Essex.

Riding Like Fury

Pedal cyclists cannot be prosecuted for exceeding the speed limit in a built-up area ("Free Speech," October 20), because the section of the Road Traffic Act, 1934, that

creates that offence applies to motor vehicles only.

Depending on the circumstances, however, cyclists could be prosecuted for the offence of "riding furiously so as to endanger life and limb" under the Highway Act, 1835.—ERIC JONES, Swinton, Manchester.

At A Price

Many people, while agreeing generally with Sir John Cockcroft ("Britain Plugs In To The Atom," JOHN BULL, October 20) will dismiss one part of it. These are people who live in isolated communities, and who for years have tried to have electricity laid on, but have been unable, or unwilling, to meet the charges demanded by the supply authority. In urban areas, however, poles are erected and underground supply cables laid without charge to the consumer. While this discrimination persists, it will be many years before all homesteads enjoy the benefits of electricity.—ROBERT DIXON, Harlington, Middlesex.

Small World

I have an indoor garden. In a Chinese bowl there is an aloe brought back from Dubrovnik, a cactus from Genoa, and another from Rimini. In another home-made bowl is a prickly pear

CONTINUED ON PAGE 10

The gift that makes all the difference

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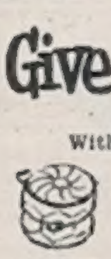

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Free Speech

CONTINUED FROM PAGE 8

from Granada, a different kind from a garden in Algeciras, and a succulent taken from the cliffs outside Tangier. I have only to look round my room to recall some of the most enjoyable holidays ever experienced. —Miss C. Isaacs, Richmond, Surrey.

Modern Guise

Until recently, I was one of those people who threw up their hands in horror when they heard a classical musical theme in modern dress. Then I asked myself: why bother to translate the Bible, Shakespeare or Shaw into other languages? The answer: to give an infinitely wider public the chance of appreciating these works.

If Borodin's wonderful music can win enormous popularity in the form of "A Stranger in Paradise," why should the purists grumble? The treatment gives the old masters a new lease of life and the new generation something worth listening to.—J. D. L., London, E.4.

Post Haste

Waiting for a bus the other day, I noticed the postman delivering letters up and down the front paths of the houses. It occurred to me that time and energy could be saved if we adopted the American system and had a box at the front gate.—J. E. Verrier, Chingford, Essex.

"In some country districts, people do put boxes on their gates," says the G.P.O. "It does save time, but not everything can be put in a box. Registered letters, for example, must be taken to the door."

John Bull pays one guinea for each letter published in "Free Speech," and at the usual rates for photographs. Readers with problems (other than medical) should write to the John Bull Free Advice Service, whose experts answer questions by post

Win £1,000 cash FREE for a cover title

Don't wait for Christmas—win yourself a valuable present in advance from John Bull now, by entering this week's cover title competition. The prize is £100 *free* for the best title—and an excellent chance of winning that extra award of £900 which is in store for the writer of the best winning title in the whole series, which ends on December 8.

When you have decided on a title—consisting of not more than eight words—cut out the small reproduction of the cover printed at the foot of this page, paste it on the right-hand side of a plain postcard and write your title alongside it in BLOCK CAPITAL letters. Add your name and full postal address, then post the card (2d. stamp) to John Bull, No. 10 Cover, 96 Long Acre, London, W.C.2 (Comp.), to arrive not later than Monday, December 3, 1956.

The prize of £100 will be awarded for the most apt and original title received. Each reader may send one postcard only for this week's contest, and only one title may be written on each postcard. The prize will be shared in the event of a tie. The Editor's decision is final on all matters concerning the competition. Employees of the proprietors of John Bull (also of associated companies) and their families are not allowed to enter.

WINNERS OF COVER CONTEST NO. 5

The £100 prize in cover contest No. 5 is shared by Mr. C. H. Chapman, of 40 Shelley Street, Northampton, and Mr. E. J. G. Lack, of Greenacres, Coffinswell, Devon. Their title for Laurent's painting of the boy trying on football boots was THE BIRTH OF A BLUE.

ANOTHER CHANCE TO WIN £1,000 FREE NEXT WEEK

THE COVER

He enjoys it. Thank goodness . . . ! What a happy relief for Mays's cover parents; on his first trip to the big bath, their gurgling youngster is quite prepared to believe that four inches of tepid water and a slippery, playful cake of soap are there just for his own personal entertainment. Yes, the parental confidence trick has worked again, and the ulterior motives behind all this lather haven't been suspected. But just wait until he regularly gets dirty enough to need so much soapy attention. Bathnight won't be such fun for the family then.

GOOD!

good to eat and good for you

Cadbury's Chocolate Biscuits are delicious—and they're GOOD! There's goodness in the biscuit centres: there's extra goodness in the Cadbury's 'Dairy Milk' Chocolate: there's goodness through and through!

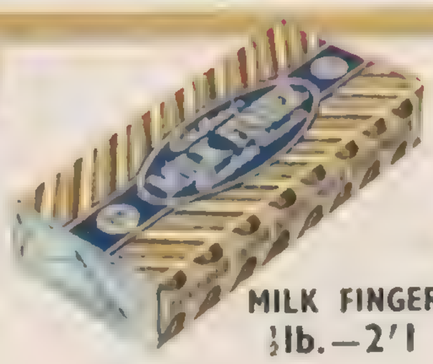
Good to eat

Cadbury's Chocolate Biscuits are a ready-to-serve feast at any time. And everyone loves them. Just bring out a packet and the whole family shout "GOOD! Cadbury's Chocolate Biscuits!"

Cadbury's Chocolate Biscuits

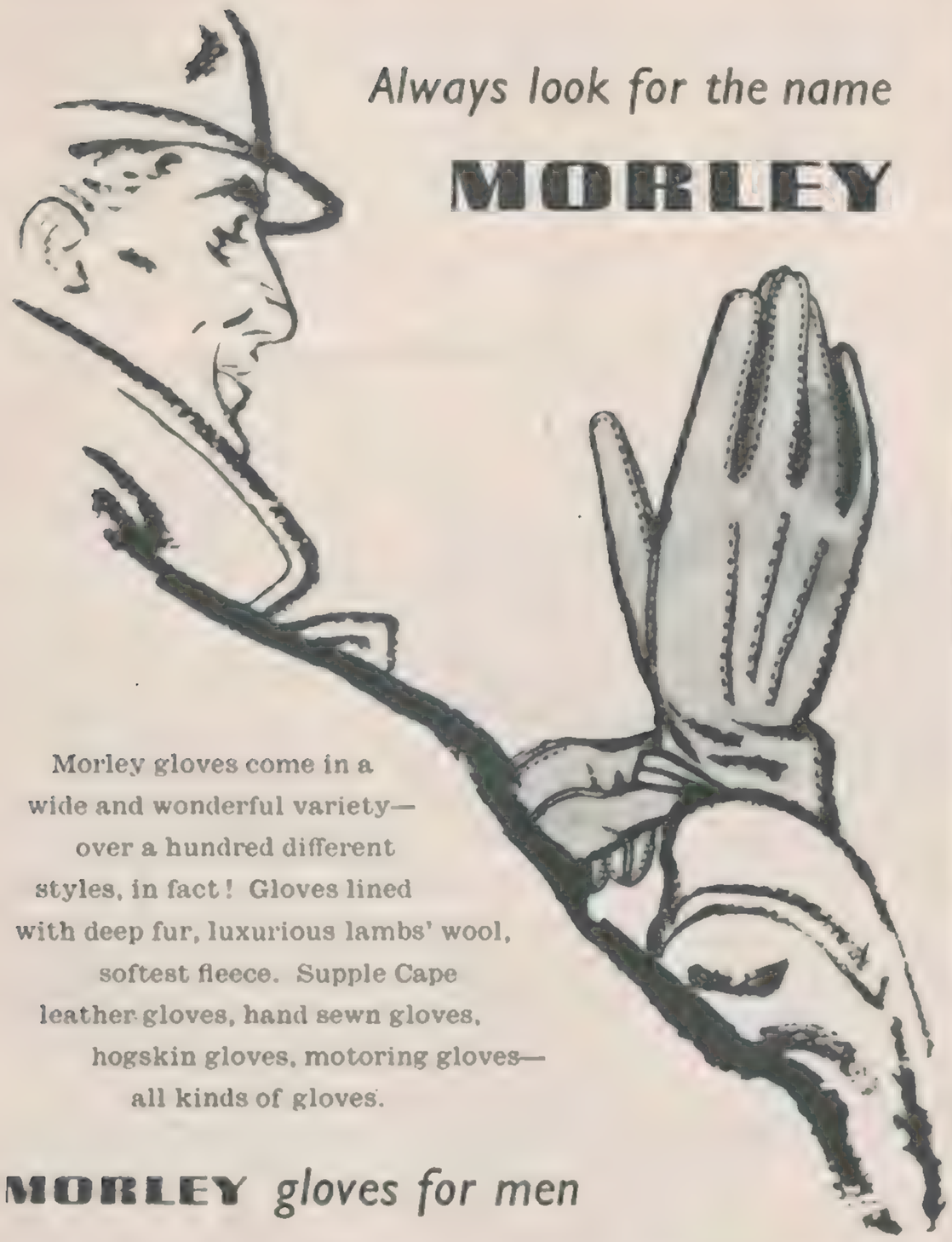
COVERED WITH CADBURY'S DAIRY MILK CHOCOLATE

MILK WAFER
½lb.—2'1



MILK FINGER
½lb.—2'1

MILK ASSORTED
½lb.—2'-



Always look for the name

MORLEY

Morley gloves come in a wide and wonderful variety—over a hundred different styles, in fact! Gloves lined with deep fur, luxurious lambs' wool, softest fleece. Supple Cape leather gloves, hand sewn gloves, hogskin gloves, motoring gloves—all kinds of gloves.

MORLEY *gloves for men*

---

will you marry me?

THE magic of the moment when every dream comes true is captured forever in the lasting beauty and exquisite setting of a James Walker diamond ring. Every ring is a model of carefully selected and matched gems, handset by craftsmen with over a century of tradition. *The Diamonds are set in Platinum mounted in 18ct. Gold Rings.*

Diamond single-stone £25.10.0

Diamond cross-over £10.10.0

Diamond three-stone £17.17.0

Diamond half-hoop £24.10.0

22ct. Gold Wedding Ring £3.3.0

Estab. 1823

James Walker

Dept. 35, CENTURY HOUSE, STREATHAM, LONDON, S.W.16

Send p.c. now for colourful RING BOOK—FREE.

ST. JAMES'S IN LONDON AND THE HOME COUNTIES

Full protection for them

CASH BONUSES FOR YOU

are the outstanding benefits of the ROYAL LONDON Guaranteed Cash Bonus Policy which provides—

- Life Assurance
- Protection for Dependants
- Saving for old age
- Normal bonus additions

PLUS

- Additional Bonuses in Cash DURING the period of the policy.

All for a small weekly saving.

This is worth looking into. Why not send the completed coupon for full details.

ASSETS EXCEED £124,000,000

—

FOUNDED 1861

Royal London Mutual Insurance Society Ltd.
ROYAL LONDON HOUSE
FINSBURY SQUARE, E.C.2

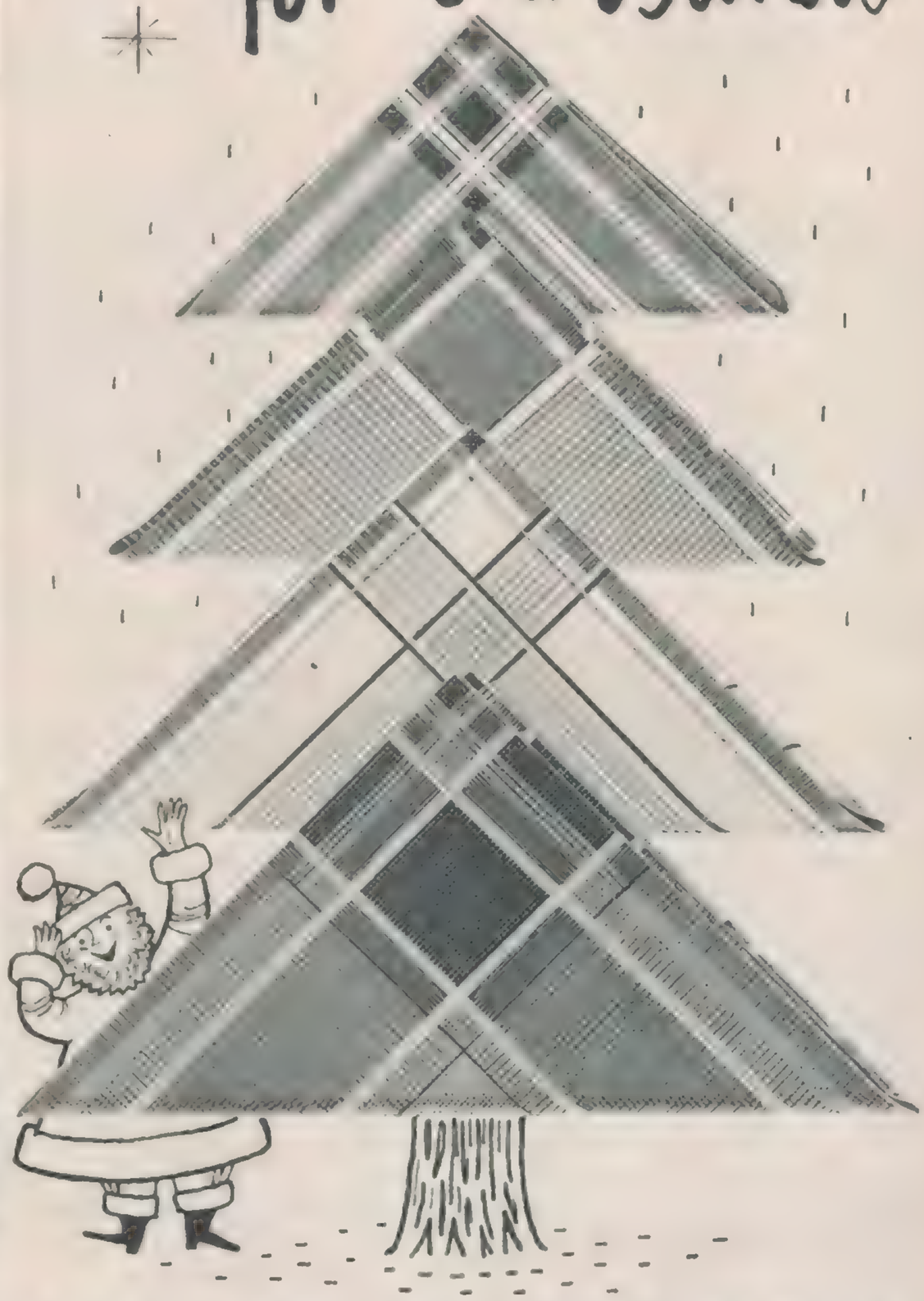
Please let me have full details of your Cash Bonus Policies.

NAME..... Age.....

ADDRESS.....

..... 2d. stamp if posted in unsealed envelope. N.13

Give PYRAMID for Christmas



PYRAMID

TRADE MARK

THE TOOTAL HANDKERCHIEF

All PYRAMID handkerchiefs are soft finished ready for immediate use and carry the TOOTAL guarantee of satisfaction. MEN'S—2/3 to 2/11. WOMEN'S—1/9 and 2/-. Also available in handsome Gift Packs of three or six handkerchiefs.

See the registered Trade Mark Label on every handkerchief.

TOOTAL BROADHURST LEE CO. LTD
56 OXFORD STREET, MANCHESTER 1

PYRAMID

HEADHUNTERS OF IANAGL

by OLAF RUHEN

ILLUSTRATED BY JOHN BERRY

Was Corporal Nundi a paragon or a braggart? Harrison couldn't be sure . . . but this savage battle would tell

PATROL OFFICER RON HARRISON, twenty-six, tall, fair, unmarried, not over-ambitious and just a little lazy, was in the third and last week of a routine river patrol when they brought him the news of the murder of the women.

He was encamped for the evening in the village of Mubaidia, a small and impoverished community of sago-eaters, thin and miserable people who enriched a diet composed mainly of starch with small additions of grubs and snake meat. Harrison, in country new to him, with a team of ten strange constables under a corporal whom he did not altogether trust, was in that hour looking forward to a speedy return to his pleasant, if fairly primitive, headquarters at Arodi.

It was the corporal, Nundi, who now brought him the news of the killings. Nundi looked and acted like a paragon among men, thereby engendering that distrust which Harrison tried neither to explain nor to

Continued on page 49

The girl was terrified. From the edge of the garden she watched the men rush upon the unsuspecting women. . . . The warriors claimed nine heads

Beginning the story of the millionaire who taught women how to shop

NO NAME ON THE DOOR

by A. H. Williams

Gordon Selfridge often held exhibitions at his store to attract customers. He surprised rivals by not having his name on the store's door

Selfridge as a young business genius

MY first meeting with Gordon Selfridge took place in his office above Selfridge's Oxford Street store in London in the autumn of 1914. A mutual friend had told him that I was sizzling with ideas about advertising and publicity; so he wrote and asked me to call.

I was twenty-five years old. Six years earlier I had founded the Berkeley Press, which specialized in fashion publicity. Selfridge was acknowledged to be the greatest showman in retail merchandise that Britain had known. He had opened the store in 1909 and in five years changed the retail pattern of London.

He kept me waiting, and I thought it was the usual routine, to soften up the caller. But it was never a part of Selfridge's repertoire; when he kept a caller waiting he really was busy. I didn't know that at the time.

Selfridge, sitting at his desk, watched me walk in. He sat with folded arms and head thrown back, his eyes cool but not unfriendly behind rimless pince-nez. He nodded, waved me to a chair, but did not offer his hand.

"Mr. Williams," he said, "I understand that you are seeking a position in this organization. Tell me your experience."

While I was talking he kept his eyes on me. They were powerful eyes, blue-grey in colour.

"What do you think is the main purpose of advertising?" he asked.

"First to sell goods, second to educate."

"I should put it the other way round." He said it with a finality that closed the discussion.

The first World War had broken out in August. We all shouted "Business as Usual," but few of us really believed it. My own turnover soon proved that business was not as usual.

A few weeks after our interview there was a telephone call from Selfridge. He was curt and to the point. "I'd like to see you in my office at ten thirty tomorrow morning," he said, "if it's convenient."

The next day—I was there on time and was

shown in at once—I was appointed Selfridge's advertising manager.

At that time Gordon Selfridge was nearing sixty: he looked a young fifty. His powerful, knotted hands, which were often pressed down on the desk when we talked, told the true story of his age. The forefinger of the left hand appeared to be stiff. When emphasizing a point in conversation, he had a habit of banging his fist on the desk. Selfridge's protection against the importunate and the over-familiar was his intimidating demeanour. It cut most people down to their true size.

His charm began to work on me early in our business relationship. The reason was his absolute mastery of every aspect of the business I dealt with. But behind his knowledge and his insight into the public mind was his all-pervading optimism. It seeped out of his office into every department of the store, inspiring every director, buyer, assistant, packer, clerk, window-dresser, vanman and liftgirl.

"Optimism is the foundation of this business, Williams," he said on one occasion. "Our prestige is built on it. And prestige means more than money."

The business had, in fact, been short of money ever since it opened in 1909. Although Selfridge had sunk the greater part of his personal fortune in it, the store was under-capitalized.

Two years afterwards, a serious financial crisis arose, and he was forced to approach John Musker, of the Home and Colonial Stores, for aid. Musker took a very large debenture on the company; and the crisis was temporarily overcome. But it recurred from time to time all through Selfridge's career with the store.

SHORTLY after I began my duties I accumulated a stock of advertising ideas and laid them before Selfridge hopefully. He rejected them all but one and gave me his reasons.

"There are three or four main lines to the public imagination, and the aim must always be to appeal to that," he said. "It isn't enough to offer goods for sale; that's merely trading. The appeal to the imagination must be strong enough to get people into the store whether they want to buy or not. Once there, they'll buy."

We discussed advertisements for the provision store, one of the favourite children of his retailing genius. He had several others; but for the moment he was concentrating on provisions. "Tell the truth, always tell the truth in your advertisements," he said earnestly.

Curiously enough I remained standing all through this talk. There was a chair some distance from his desk, but it never occurred to me to draw it up and make myself comfortable. Nor did he encourage me to do so.

That seemed to be a rule of the house, though it was never given official form in words. In the chief's presence, you stood.

In business, Selfridge had a reason for everything, including this matter of the chair. "They all want something from me," he said once, referring to visitors. "Once they're seated, it's hard to get rid of them."

But Selfridge could be generous—and he was not above handing out gifts to promote the interests of his business. He had known poverty in America, and had an unforced sympathy for people who ran into trouble.

In Selfridge's Chicago days, one of the boys at Marshall Field's, the great mid-West store, stole money from a shopper's handbag. Selfridge had him on the carpet. The boy told a pitiful story of sick parents who couldn't afford to call a doctor and were short of food.

But the case was so serious that Selfridge had to refer the matter to Marshall Field himself. Field was a man of puritanical rectitude, though not without heart.

Selfridge, touched by the boy's account of his home life, ordered a hamper of provisions to be packed and, as soon as the store closed, drove with it to the slum in which the boy's parents were living. As he struggled up the stairs with the hamper, he met one of the Marshall Field's vanmen coming down.

"What are you doing here?"

"I've delivered a hamper of provisions for Mr. Field to Number Six," the vanman replied.

It was at Marshall Field's that Selfridge began his rise to greatness and riches. . . .

Jackson, Michigan, where Harry Gordon Selfridge went to school, was a small, energetic community mostly drawn from the pioneering stock of the east.

Robert O. Selfridge, Harry's father, came from New England. After fighting in the Civil War for the North, he married and settled in Ripon, Wisconsin. He died a year after his son was born.

His widow—I never heard her referred to by any other name than "Madame"—was a schoolteacher. Left without means, she obtained a post in a Jackson school and moved there when her son was still an infant.

Harry was small and trim in build; he was

Continued on page 56

Marshall Field I was head of the great Chicago store (left) which Selfridge revolutionized

The inside of Marshall Field's, even in the nineteenth century, was like a modern British store

Selfridge's mother was known to everyone as "Madame." Her son was devoted to her and rarely made a move without her advice

DERELICT TOWER

It was going to be Bill's grave—because he would not share the fortune that it hid

by ELAINE MANS

ILLUSTRATED BY LAURENT

THEY were only two days from the mine now, and that night, lying awake in the darkness waiting for Charlie to go to sleep, Bill recalled what the old man had told him about the mine, and why it had died out.

"I remember the days, thirty, forty years ago when it was a copper mine," Charlie had said. "There were rows of houses then, as far as you could see. About six hundred people. Club, golf course, everything. Then suddenly it was finished. Everyone was gone within a month.

"Then a prospector found lead there and it started again, but it wasn't worth it for all they found, so that was the end once more.

"The reef does not run along, it goes down, like the stern of a sinking ship. I suppose these days, if they found anything big, they would know how to get it out. Ah, you'll see nothing there, for all it was once."

Bill stirred restlessly. He'd been a fool to tie up with the old man. But Charlie knew the country all right, and the bush east of the mines of Northern Rhodesia is not a good place to travel alone, especially when you do not know it.

Bill had come up from Southern Rhodesia after a few fruitless years of looking for gold. There were rumours of something bigger than gold up here—something for which you didn't need a washing tray, or a pick. All you wanted was an expensive black box with a handle to carry it by: a geiger counter, they called it.

Uranium was the name of the rumour and a uranium strike was something that would make his fortune ten times over.

Someone he had spoken to in a Bulawayo bar had put him on to Charlie.

"He's an old man," the man had said, "but he knows the country and he's straight. You'll have to be straight with old Charlie. He's a nasty man to cheat."

"Who's talking about cheating?" Bill had replied indignantly.

So he had put it to old Charlie, fifty-fifty, and they had shaken hands over it. No paper or signatures for Charlie.

Charlie was a light sleeper. During the night he would rise while Bill was asleep and replenish the fire to keep away animals. He'd got up just a few minutes ago, and now Bill had to wait for him to fall asleep again.

As he waited, Bill reiterated in his mind the facts that had appeared to him. In the past two days, as they headed in the direction of the deserted Ndona Mine, he had twice or even three times heard the counter turn in a slow click, like someone clucking their tongue with annoyance. He was sure of it. He had a feeling, too, that his luck was turning.

And he had to share it with an old fool like Charlie who, for all his thirty years of prospecting, had never seen any of the money. Now was the time to get out, and quickly. . . .

The lush night of the rainy season was loud beyond their ground sheets. A bull frog played a succulent harp that went *plunk plunk*, far deeper than the chorus of screaming frogs and crickets.

At last the old man was asleep. Bill sat up and said, "Charlie," in a whisper. There was no reply. His pack was ready and he lifted his groundsheet soundlessly.

Once in the trees, he consulted the little compass he carried in his pocket and hurried through the high wet grass, his rifle over his shoulder. Charlie was slow. Bill would better his two days.

He reached Ndona late the next afternoon, exhausted and dismayed by what he saw.

Among the tall trees were hundreds of saplings about nine feet high, and these saplings were seeded in the ruins of houses.

He passed two or three sunken shafts, and saw that one had fallen away badly. The ground under his feet was soft and sagging. He ran in panic to a firmer piece of ground and trod warily.

When he reached a clearing in what must have been the centre of the settlement he looked up to see the final mark of desolation and decay. Here the trees had shrunk back from a monstrous erection that still wavered a full hundred feet into the sky. It was an old water tower, which looked over its old domain in all the flavour of its decomposition.

The tank, of brown rusted iron, was squat and square. It stood on five long legs, with a central leg to take the main weight. A ladder climbed up one outer leg until it vanished over the top of the tank. The iron was so encrusted with rust that it seemed as if some horrible growth had attacked the structure.

Bill made his camp on the edge of the clearing and looked with foreboding up at the water tower. As he put his geiger counter down carefully, it clicked, once. The sound heartened him. He cursed his own nervousness.

The light was failing and, when he tried to make a fire, he could not get the damp wood to burn. Clouds of blue stinking smoke stung his eyes and stifled him. He gave up all thoughts of a hot meal. Instead he chewed on some strips of biltong, opened his second last tin of bully beef, and drank from his water bottle. He sat there munching on the tasteless food, staring up at the water tower, which was now pricked into relief by the setting sun.

A dead mine was nothing, but this doddering post-mortem monument was horrible.

ALTHOUGH he was desperately tired, he was unable to fall asleep. The moonlight was white like powder all over the clearing, and the old water tower was plain against the sky. Bill noted again the feeble iron ladder, and an inexplicable wish to climb it tormented him.

At last he fell asleep. He heard a jackal bark in the bush but he could not keep his lids open. . . .

Then the dream came to him. A hump-backed hyena was creeping up on him.

With enormous effort he hoisted himself from where he lay, knowing that a hyena might bite off the hand of a sleeping man. The hyena was a cowardly beast that preyed on the sleeping and the dead.

"Charlie!" he whispered. But the old man was asleep. Now was the time to leave—alone

The hyena moved towards him and, as it approached, he could hear a slow clicking inside its head. He could hardly move and the animal engulfed his hand, quite painlessly, clicking all the while. He tried to shake it off, but it clung.

There was only one place to run: the water tower. Dragging his limbs as though he were swimming under water, he struggled towards the tower; and all the time the hyena clung and the clicking became slightly faster and more rhythmic.

Then, at the foot of the ladder, the animal fell suddenly to the ground and lay there crouched, becoming smaller and smaller, still clicking fast but more softly. With his arm relieved of its weight, Bill's legs were suddenly light. Like a bird he soared up the rungs of the ladder which were fragile with decay. . . .

Suddenly there was a loud ringing noise, as if a hundred hollow pipes had fallen into a well. He opened his eyes. There was the sky above him. His hands were locked tight about

something cold, and he realized it was iron tubing.

He swayed out dizzily into space. He was up the ladder on the water tower, a scant ten feet from the top. He knew then that his dream had been real.

He reached one wary foot down for the rung below, but there was nothing there. He persuaded himself to look down, and in the bright moonshine he saw plainly the gap in the ladder where it had broken off. That must have been the noise he had heard, the noise that had wakened him.

Bill clung to the rungs until his arms ached and his body chattered with terror. He realized there was only one way to go—up. Not daring to test the rotten rungs, he crept slowly upwards until he reached the body of the tank. Then he went up past the dark side to the top.

Half the covering of the tank had been ripped away and the tank was empty. He jumped to the bottom, and felt the sheet of old steel sag out under his weight with a rusty tearing sound. Then it settled back.

Crouching there on the cold floor, he shook uncontrollably. When he took his hands from his face they were wet.

At last, under the placid moon, he fell into a nightmare doze peopled with moving things and creaking noises. . . .

With the first light of dawn, Bill was awake, sodden with dew and sweat. But he was in control of himself again. With minute care he raised himself to his feet and, walking close to the perimeter of the tank because he judged there would be greater strength there, he made the circuit of his prison.

He could not see how large was the piece that had fallen away from the ladder so, cold with fear, he climbed out over the edge of the tank. Looking down he saw the fragment lying on the ground. It had six rungs. Allowing for eighteen inches between each rung, that made nine feet. And he was five foot eleven.

His muscles trembled as he clung there. He thought of gripping the leg that supported the iron ladder, but it was too wide: his knees wouldn't be able to get a hold. He clung there for a while, helpless and dizzy, while the world swung like a green censer beneath him. Then, by a superhuman effort, he clambered back to the top of the tank.

By now the sun was rising full into the sky. He was thirsty but his water bottle lay next to the ground sheet on the edge of the clearing. The rusty bottom of the tank was like a frying pan, and his thirst made him angry. He beat the iron with his hands.

There was a hollow tearing noise and he checked himself abruptly. Afraid that the whole bottom might fall out with him, he crawled on his belly to the covered part of the tank. But there the heat was stifling.

As the minutes ticked slowly past midday, Bill suffered a mounting agony of thirst. Water was on his mind continually, and his tongue lay heavy and thick in his mouth. There was a damp patch in the dim corner left by a recent storm and he crawled over and pressed his mouth to it, but his parched lips stuck to the corroded metal.

In the full heat of the early afternoon he heard the distant roll of thunder. Rain! He

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Are you getting thin on top?

DO SOMETHING ABOUT IT NOW! Many men, proud of the head of hair which their mirrors show them from the front, receive a jolt when their wives point out the thinness on the top. This is often the first stage of more serious trouble to come. It is easily overlooked, yet this is the time when something should be done about it. Are you quite sure about the state of *your* hair?

WHAT DO YOU KNOW ABOUT HAIR?

To take proper care of your hair it is essential first to know a little about it. Here are some questions that people are always asking about hair. The answers will probably set you thinking about what steps *you* ought to take.

* * * * *

Q What is hair made of?

Hair is composed of 18 chemical substances called amino-acids, which are normally present in the body. But sometimes, perhaps through illness, there is a shortage of amino-acids, which then go only to the body tissues which need them most. The tissues most likely to suffer are the hair. Is it possible, then, to feed the amino-acids direct to the hair roots from the outside? Fortunately yes, as a result of the discovery at the Silvikrin Laboratories of a special formula that contains all 18 amino-acids in an active state. This formula is in the form of a lotion and is called Pure Silvikrin.

* * * * *

Q Is hair alive?

Hair has no life in the accepted sense; it has no bloodstream, no nervous system. But it is being constantly replaced by new hair growing from the root or papilla, which lies just below the surface of the scalp in a pocket called a follicle. If the papilla is starved of amino-acids, it dies and the hair falls out. It has been proved, however, that the 18 necessary amino-acids can be fed to the hair roots by massaging Pure Silvikrin into the scalp.

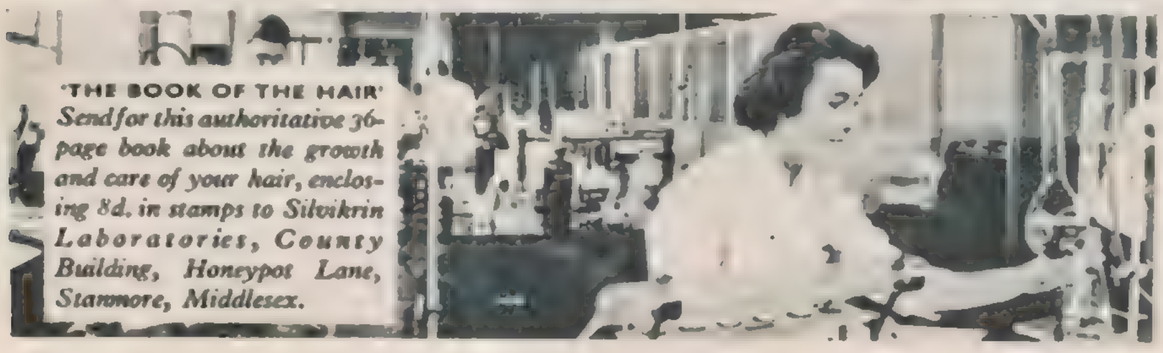
Sectional drawing showing hair root.

Q Is brushing good for the hair?

Gentle brushing not only imparts a good-looking gloss to the hair, it is all part of the vital factor of massage. Massage with the finger-tips is an essential part of the Pure Silvikrin treatment. It improves the circulation, stimulates the flow of sebum (the natural oil of the hair)and assists the amino-acids in Pure Silvikrin to penetrate right down to the roots of the hair providing them with their natural food.

DO YOU KNOW that the Silvikrin Laboratories, in their continuous research into hair and its health, have recently made important use of radio-activity? By the use of radio-active amino-acids in laboratory tests, they have proved beyond all doubt that an amino-acid is capable of passing through the surface of the skin right to the hair root and can be used by that hair root as food for the growing hair.

Pure Silvikrin is a scientific, biochemical treatment and, for satisfactory results, should be used daily with perseverance. A bottle containing a month's supply costs 12/3. *Early* treatment is always best so if you are worried about the condition of your hair, now is the time to start using Pure Silvikrin, the hair's natural food.



'THE BOOK OF THE HAIR'
Send for this authoritative 36-page book about the growth and care of your hair, enclosing 8d. in stamps to Silvikrin Laboratories, County Building, Honeypot Lane, Stanmore, Middlesex.

Pure Silvikrin

THE HAIR'S NATURAL FOOD

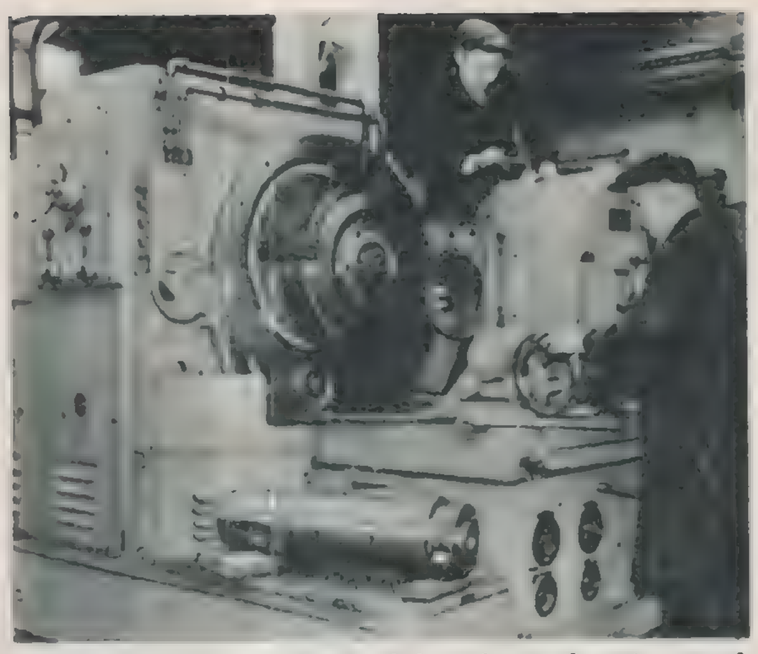
SF 41

SILVIKRIN HAIR TONIC, SILVIKRIN HAIR DRESSING, SILVIKRIN HAIR CREAM AND SILVIKRIN SHAMPOOS ALL CONTAIN A MEASURED PROPORTION OF PURE SILVIKRIN.

Can Russia beat us in the factories?

by PETER WILES

The Russians are completing a thirty-year drive to catch up with British industrial output. Already they threaten to pass us



Modern machines, backed by close planning and ruthless control, make Soviet production jump

The astonishing rise in Russia's standard of living brings crowds into the Moscow stores

THE Soviet Union was the first country to drop a hydrogen bomb from the air, the second to automatize the production of pistons for motor-car engines, the first to produce electricity by atomic fission for the grid. These were not isolated achievements. Combining agriculture, industry, transport, building and medical services, overall productivity in Russia rises by about six per cent a year. In the Western countries it seldom rises by more than three per cent.

A three per cent rise means that productivity is doubled in twenty-three years; at six per cent it is doubled in twelve years. At such a rate it will not take the Communists long to fulfil Stalin's goal: "To catch up and surpass the advanced capitalist nations." Already, productivity in Soviet industry is thought to equal that in Britain's.

This is a very serious matter indeed. Does it mean that the Russians may become as great a threat to our export trade as the Germans or the Japanese? Would they beat us in a renewed armaments race? Will they be better able to help the backward nations of the world, with all the political consequences which that implies?

Above all, perhaps, how has it been done? Have we anything to learn from it?

In 1917, when the Communists took over Russia, the country was poor and undeveloped. Up to the last war it looked as though Russia's rapid industrialization was being ruthlessly achieved at a cost of starvation for millions and declining living standards for all, or nearly all. But since 1945 living standards have risen with astonishing speed. The very low prewar level had been regained by about 1950, and from then on real wages rose by about ten per cent every year for four years running.

WHILE money wages rose very gently, prices fell fast. Between 1948 and 1953 the cost of living was practically halved. With the increase in supplies and the lowering of production costs, the State simply ordered price reductions, partly out of taxes and partly out of profits. They were made in big batches every spring.

This has not yet made the Soviet Union a workers' paradise. Allowing for income taxes and social services, the average Soviet income now buys about half the goods and services that can be bought with the average British income in the towns, and rather less than that in the countryside.

This is for a rather longer working week (forty-eight hours is the standard). But, as a rate of improvement, few countries in the world can beat a showing of this kind.

Clearly, the prewar forcing down of living standards in Russia was something that was temporary, although it caused great misery for two decades. The reasons for the success of the Soviet economy must be looked for in features of Communism which are more permanent.

The first permanent feature is the government's scale of priorities. This can be summed up in two word pictures:

Near Moscow is an institute for atomic research, round which a whole new town has grown. It contains the world's largest nuclear accelerator. American visitors regard this machine with stupefaction. In size and expense it is quite beyond the means of any laboratory they know. And the building which houses it is so ill-made that the doors will not shut.

An old woman works in a Moscow street. She has a crowbar and with it she chips at the ice into which traffic has beaten the snow. She wears a nondescript old padded cotton tunic, ungainly felt boots and a grey scarf over her head. Milk is not delivered in Moscow, so she takes her milk can with her. Later in the day she will queue up for it. By her flows a stream of elegant, efficient American-style cars, all of Soviet make. They are all nearly new—shabby or dirty cars are not allowed in Moscow. Most of them belong to enterprises and institutions, but both the bosses and the chauffeurs use them for their private purposes, as in other countries.

These contrasts are, in part, a natural result of the Soviet scale of economic priorities, in

Continued on page 55

Milk Chocolate Toffee
Fruit Nougat
Nutty Fudge
Creamy Caramel
Coffee Cream
Orange Fruit Jelly
Raisin Caramel
Double Nut Delight
Orange Cream
Walnut Surprise
Milk Neapolitan
Peppermint Stick
White Heather
Pascall
Assortment
White Heather
for me!
It's such an exhilarating assortment
I'm steering straight for enjoyment with wonderful Pascall White Heather! There's no limit to the pleasure I get from those delicious centres and that lovely Milk Chocolate—I just can't stop until I've finished them all.
Exciting new centres - creamy milk chocolate!

CONGOLEUM CAN SOLVE

ONE OF YOUR BUDGET WORRIES

Covering floors can be a headache, and not only for people making a new home. Congoleum has solved the problem for thousands and thousands of happy couples. For Congoleum is the cheap — yes, *cheap* — floor covering that lasts and lasts and always looks well.

Lay it yourself—for less than £3!

Congoleum really is a bargain. A square for an average room costs less than £3. And it's wonderful value because it wears so well and is so easy to keep looking fresh and clean. Congoleum is made of tough bitumenised felt, and the lovely patterns are printed in Multicote linseed oil paint with a hard Cellulose finish. A rub with a damp mop is all that's needed to clean it but, if you like, it will take on a beautiful polish. When laying squares, just follow the directions on the wrapper.

Congoleum is also sold by the yard

— ideal for bathroom and other floors that you want to cover to the walls. Congoleum is easy to lay : just put it down. And it is easy to buy. You can get it at Household stores and furnishing shops everywhere.

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Twenty thousand books take the road

by ROY HILL

Remote villages and farms welcome mobile libraries. They have helped readers to blow up caves and even dig a well

IN a snowstorm last winter, a cream and brown van of the West Riding travelling library service approached the top of Greenhow hill, two miles long and with a maximum gradient of 1-in-4.5, near the market town of Pateley Bridge in upper Nidderdale. The hill already had a treacherous surface of hard-packed snow, and as Maureen Devine, the librarian with the van, peered ahead through the snow flurries, driver William Coates steered down the first incline cautiously in third gear.

"As the hill steepened, I decided to change down into second," he says. "But I missed the gear. The van started to run away, and when I braked we began to slide. We slid for a hundred and fifty yards and hit a wall. After half a minute Miss Devine said: 'Are you scared, Mr. Coates?' I replied: 'Not now, Miss Devine.' But if we had gone any farther we'd have crashed over a precipice."

When they had inspected the damage, finding a jagged hole in the front of the van, Maureen Devine and Coates decided to continue their round of isolated farms and hamlets.

Coates, a married man with three children, drives his van from a base at Ripon, maintains it, and stamps the library books as they are issued. Miss Devine, an attractive Yorkshire-born girl aged twenty-six, with brown hair and pale blue eyes, has worked with Coates for three and a half years. She advises borrowers, takes orders for specialist books—and opens up to thirty-three farm gates a day on the nine different routes she travels each fortnight.

"About half the books on the vehicle are non-fiction," she says, "and one of the fascinations of the job is to see for yourself the practical way in which these books assist folk in the country. One farmer wanted a book on how to dig wells. He kept renewing it and two months later, when we called, he showed us a well on his land. He had followed instructions, hired a boring machine, and tapped an underground stream."

ANOTHER farmer asked for a veterinary manual. A fortnight later he confided: "It came in very useful, lass. One of our cows swallowed summat, and she was choking. But I saw an illustration in the book about what to do, and we made her cough it up."

On the other hand a woman who asked for a book on goldfish complained that in spite of the advice it contained her fish had died.

Last year, librarians in nineteen vehicles carrying more than 20,000 books between them travelled 211,000 miles in the West Riding, and made 1,211,807 issues. Their vehicles range from small "travelling" vans with a thousand books, like Miss Devine's, to giant "mobile" trailers with three thousand volumes. Anyone who lives in a rural area more than a mile from a library centre or one and a half miles from a branch library is entitled to use the travelling service, where it is provided.

Some customers are disconcerting. In the Otley region a reader pored over books on explosives so diligently that the librarian questioned him. "I'm enlarging some limestone caves on my land by blasting," the borrower explained. "I experimented on an oak tree the other day. You've never seen a tree come up so fast in your life."

Until the county library grew wheels, many country folk had small acquaintance with books. Now, the proportion of non-fiction issues on travelling library routes is 37.7 per cent compared with an average of 29.6 per cent from all libraries in the county area.

"Country housewives are very keen on cookery books," says Miss Devine, "and fancy French fare is finding its way into remote Yorkshire dales. Before the Pateley Bridge show, in September, we had a great demand for do-it-yourself books. At one farm the women followed

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In their specially equipped van, Maureen Devine (second left, below) and William Coates travel the Yorkshire dales. At first they were mistaken for the grocer

Sam was £30,000 richer, but he had lost a brother. At the White Lion he sat alone with his sorrow—and a pint of beer

Sam Shuttle's silver spoon

by ***CLIVE BURNLEY***

ILLUSTRATED BY RICHARD O. ROSE

To be quite frank, Sam was a darts-playing layabout; not at all the type to be Mary's father-in-law. . . . Then he suddenly came by a fortune

It's a long story—five years long—but they tell it twice a day in High Ludyard and it deserves a wider public. It began when Miss Rose said she'd forbid the banns, which in itself caused something of a flutter in the village.

High Ludyard is a mossy-roofed hamlet which now lies within four miles of the new town at Corsenden, from which it is distant in other respects by several hundred years. It is an elm-shadowed and beamy-walled village and is regarded by the occasional weekend fugitive from main-road traffic either as an idyllic fragment of a merrier England or as a stark and primitive remnant of a darker age, according to his prejudices and the weather at the time. It is, of course, neither.

Miss Rose was a prominent local resident. She wasn't quite old enough to be called spinster with malice, although she may have been in her late thirties.

She was a pink and rather angular, horse-riding, kind-word-for-everybody local notability who, while admittedly making a little genteel money by writing country notes for a city paper, was, by some anachronistic chance, what is called independent.

She was mistress of White House, a bold slab of building lurking in its shrubberies atop Baldwin's Hill. Ludyard liked her because she spoke to everybody, subscribed her guinea a year to all local organizations, let the lads who came to scrump in her orchard stay to pick up windfalls, and appeared to have no categorical opinions on such touchy matters as religion, politics, licensing extensions, or the war memorial playing field. She was, everybody had thought, not in the least stuck up.

And then—it was the first of a series of shocks for Ludyard—she straddled her broomstick and showed what she was really like: stuck up further than was decent, a member of that itchy blood group which has one blue corpuscle in several million.

Miss Rose, you see, was aunt and only surviving close relation to Mary Gillow, a glowing beauty of the corn-haired type who spent much of her time at White House when not doing confidential secretarial work in Throgmorton Street. And when Miss Rose heard that Mary intended to marry Dick Shuttle she said, at once and with emphasis, that she would forbid the banns.

"But, my dear aunt," Mary answered, "you can't stand up in church and say I can't marry Dick because I'm fourteenth cousin to a real baronet, or whatever it is, and he's only the son of a jobbing-builder's foreman. Nobody cares at all—only you."

"Very well," said Miss Rose, "but I warn you—if you persist in this foolishness, neither you nor your husband will ever come here."

Mary didn't answer. She simply turned her back and walked out into the garden. . . .

It was all a dreadful pity and serves to show how the shadow of a single comma in *Burke's Peerage* can loom large enough to make the course of true love as dark as the inside of an uncracked walnut.

Mind you, there was something to be said for Miss Rose's attitude; not much, but something. Dick Shuttle was all right; he'd been to grammar school, spoke radio-English and was in lodgings in Crake training to be a solicitor—a well-made boy, but meek, not at all sure he hadn't been aimed too high by those who'd marked his scholarship papers. Of course, what he needed to make a man of him was Mary Gillow to wife; he knew it and so did she.

But his father, the jobbing-builder's foreman—well, to be quite frank, he was a difficult sort of father to live down. Sam Shuttle was a large, lazy, bold-nosed, dreamy-eyed widower, somewhat beer-faced, with a balding head and—what comes naturally to the indolent—a heart of gold. He liked things pleasant and easy and therefore argued with nobody, whence he was thought to have no opinions and, in consequence, no principles.

He was the closest thing to a foreman old Nick Shaylor had at his builder's yard at Giblet Corner, where the pound used to be, and you'd find him there most days in his shirt-sleeves.

He lived in Coachman's Cottage, for his father had been hoss-whipper to the squires when the village had squires. When those local aristocrats had sold out to keep alive after death duties, they had given the cottage to the Shuttles—and by that time it was the kind of cottage you have to give away. Sam spent some of his leisure there, reading the racing papers and breeding budgerigars; but more of his spare time was passed at the White Lion, where he kept his

Continued on page 44

Miss Rose was very much surprised by Sam. She had expected a swaggering bore—and he was a grave gentleman

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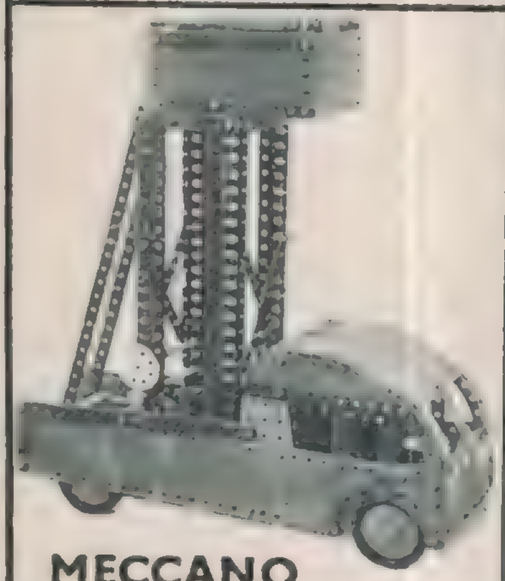

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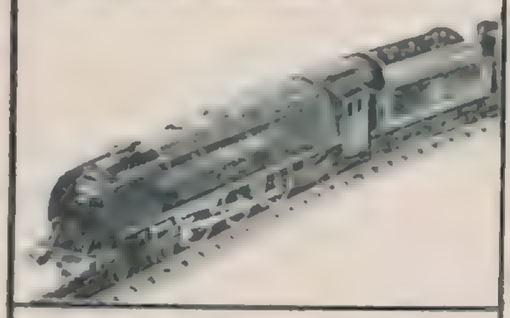

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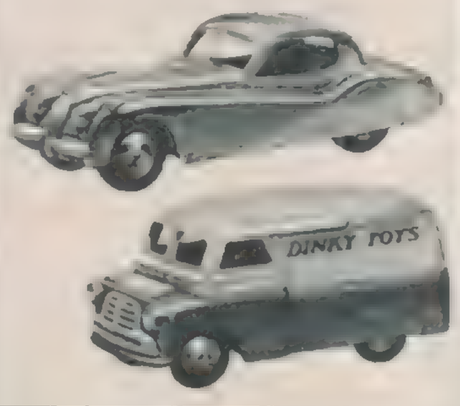

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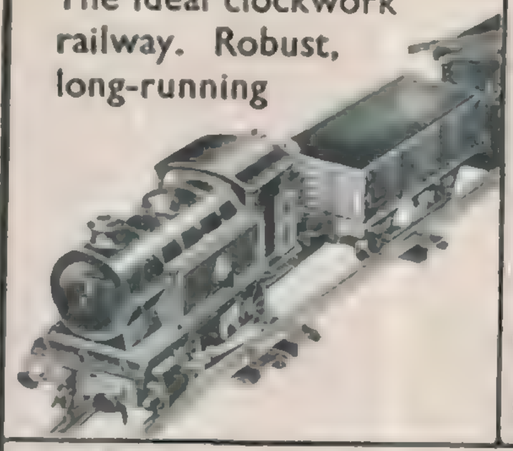

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Norman bluffed his way into an ice-show part by saying that he could skate. He made such a hit that he was congratulated by Gracie Fields, and afterwards (below) was chosen to star in *Sinbad The Sailor On Ice*

UP IN THE WORLD (3)

Gracie sweeps me into the limelight

by NORMAN WISDOM

Suddenly she crossed the arena, lifted me in her arms and kissed me. The audience roared in approval. I couldn't believe my ears as she said: "It's all right, lad. You were wonderful"

EARLY in the New Year of 1948 Freda and I caught the Blackpool train at Euston. It seemed like a fateful journey. At some time in the lives of most people there comes a make-or-break point, a critical change of direction which governs the years ahead. As I saw it, this was mine.

We were travelling by train because we had been forced to sell our little red jalopy to cover a lean spell following an ill-fated show in Brussels.

In London, though I was fairly well known, I could get no further work except for a single B.B.C. Television appearance which rewarded me with fifteen guineas to tide us over Christmas. We had spent the holiday at Deal with my mother, and then had followed days of traipsing round the theatrical agents' offices. I was willing to try anything.

One wet morning late in January I climbed the stairs to the Bernard Delfont Agency just off Piccadilly and found myself in an office face to face with a small, pale dynamo of a man wearing rimless spectacles. He was Billy Marsh. I had heard that he was recognized as the most go-ahead agent in the business.

All round the walls was a photo gallery of some of the biggest names in show business, important first nights and premières, and it had the effect of making me feel even smaller than I usually feel. Only the carpet was clear of photographs, and I noticed that my lightweight mac was dripping water all over it. It made me feel rather self-conscious.

"I saw you at the Victoria Palace," said Marsh briskly. "What can I do for you?"

I explained to him that I was signed to another agent, Bert Montague, and then asked if he could take over my affairs.

Suddenly, Marsh was on his feet, grabbing his hat and raincoat. "All right, let's see what Bert thinks about it."

We arranged things amicably between the three of us, and Billy Marsh was in a position to

Norman is congratulated after a show by his mother and Freda. He paid a shilling for his cloth cap when David Nixon wanted a stooge

In one revue Norman did a comedy piano act, slamming the padded lid on his fingers. Once the pads came off, and he damaged his hand

To avoid theatrical "digs" Norman and Freda bought a caravan—and almost regretted it. But, once they had mastered all its problems, they even entertained their friends

give me an immediate booking at the Palace Theatre, Blackpool. That was how Freda and I came to be on the train that day, and all the way up country I had this feeling that either something really big was going to happen or that I would have to admit that show business didn't need me any more. I didn't feel very optimistic, but Freda kept talking in a way that raised my hopes.

On the Monday night, after the first show, I was relieved to feel that I hadn't done badly. Next day, I bought an evening paper for the criticism and was surprised to find the first real rave notice I'd ever had. I read it through so often on the way back to our digs that I could say it off by heart by the time I met Freda. It said:

> "Last night a young comedian literally flung himself on to the stage and made a dent that must surely mark him for early stardom."

I played it even harder after that, for the rest of the week, and though no further engagements lay ahead I felt much happier on the way back to London. When I called on Billy Marsh on the Monday morning I found he had been trying to get in touch with me for an hour

A comedian had been taken ill at the Hippodrome, Brighton. Could I go down and fill in? "It will mean going on without a band call," he warned.

I was so desperate for work I would have gone on without my shirt.

WITH Freda, I caught the first afternoon train to the coast. Going on without rehearsal was tricky, but I did well enough for the manager to become quite excited, and later in the week Marsh brought Bernard Delfont along to see the show.

He promptly offered me a part in a spectacular revue he was preparing for the London Casino. Before the week was out, even Val Parnell had been down to run the rule over me.

It seemed, quite suddenly, as if all our troubles were over, or some of the immediate ones anyway. It was like coming through a crisis in a serious illness, and feeling better every day.

As the Casino show approached, I worked seven days a week practising new routines, polishing everything in my act. I was due to be on stage for nine minutes, but as opening night

In a TV studio Norman watches a rehearsal with Billy Marsh. They met after Norman heard Marsh called "the most go-ahead agent in the business"

Norman flew to America (right) and tried in vain for a part in Ed Sullivan's TV show. Then Sullivan visited Britain with his wife (below) and offered Norman a job

got near Bernard Delfont began to wonder if this wasn't too long to risk on a new comedian.

I was told to cut three minutes out of the act. I agreed readily, but once I was performing I lost accurate track of time and stayed fourteen minutes, the latter part of it in some discomfort. I had introduced a piano-playing routine in which I slammed the piano lid on my own fingers. It was equipped with rubber pads to soften the blow, but during the show these worked loose, unknown to me, so that when I slammed the lid I damaged my hand.

My fingers were numbed and the shock sickened me. From the piano I went into a few tunes on the clarinet. My fingers wouldn't function properly, and the instrument produced a series of unpleasant squeaks. Luckily, the audience took it all as part of the act and laughed. I got away with it.

After the show, reporters and photographers crowded the corridor leading to my dressing-room.

I was still sweating after my knockabout act, and I heard someone tell me to go and towel down before going ahead with the interviews. Instead of following this advice, however, I stayed talking, excited at this unexpected furore of interest.

By the time I went into the dressing-room to dry off, the damage was done. I shivered that night, and felt a cold coming on, and next morning I was aching all over. I had a pain in my back, a headache and a high temperature.

Freda called the doctor. He diagnosed pleurisy, and said that I would be mad to go on that night. I could not agree to this. Just when the tide had begun to turn I couldn't sit back. I explained that I had to continue in the show, and though he obviously didn't understand my feelings in the matter the doctor strapped me up. I still felt ill on the way to the theatre, and I gasped for breath as I climbed the stairs.

I tried to look robust and perky during the performance, but how I got through it I'll never know.

As soon as the show was over, Freda wrapped me up and took me home in a taxi. For my second week at the Casino my pay was doubled from £50 to £100, and the tide continued to turn: one night Billy came in to say he had booked me for the Golders Green Hippodrome at £250 a week.

There were other offers ranging from £100 to £200 a week, but to my amazement Billy urged me to lay off and to take a concert party season at Scarborough at £35 a week. It was beyond understanding.

Billy explained that the vital thing was to learn my job properly, and a season at Scarborough would help. Instead of becoming a speciality act repeatedly working the provinces I had a chance to broaden out, to become a real comedian.

VERSATILITY was implicit in the concert party: for *Out Of The Blue* we had four different weekly programmes, and four shows a day. After a while, the conjurer, a balding young man with an amusing smile, found this rate of consumption a strain on his material. He took me aside one morning and asked if I would help him to "mess up a couple of tricks."

Ideally, I would have to appear rather gormless, and in order to emphasise this character I called in at a second-hand clothes shop and bought a tight-fitting grey suit for thirty shillings and a cloth cap for a shilling.

The conjurer, David Nixon, had a disappearing cabinet in which he was supposed to make me vanish. I got into it, only to dart clear again as if afraid of the darkness when he closed the curtains.

He then explained once again what I was supposed to do, and climbed in himself to demonstrate. I fired the pistol and he disappeared. It was a simple idea, but it went over surprisingly well, and soon David was helping me to get laughs instead of vice-versa.

In this "gump" rôle, I felt the audience was more sorry for me than audiences had been in the past. I began to play it up, laying on the pathos to see how far it would stretch.

Sometimes I overdid it, getting laughs where I had not intended them; yet a character was emerging that was more clear-cut than any other I had attempted. Later in the year, when I went to the Casino for the second time, David came along with me as my straight man, and although there was no question of setting the West End on fire, the Gump found a sure place.

It was this Gump rôle, so accidentally conceived, that set me on the way to understanding the job: I was beginning to concentrate on comedy pathos and paying more attention to my singing. When I went to the Alexandra Theatre at the end of 1948 as a tattered Billy Crusoe in *Robinson Crusoe*, I was still developing the pathos, and the Midlands impresario Derek Salberg was delighted.

He booked me for the following year's pantomime at Wolverhampton, and Henry Hall arranged for me to appear in the summer of 1949 at Blackpool. With all this moving about ahead, Freda and I talked over the best way to live in such circumstances.

Neither of us liked digs or hotel life. We preferred the open-air, the countryside. But how were we to reconcile this with the work of a travelling comedian?

We settled on a caravan. We acquired an old second-hand Vauxhall, drove round some caravan sites in the Midlands, and bought a two-wheeled caravan.

When the salesman brought it along, I suggested that I might drive it round some of the streets for practice. I had heard that towing produces unique driving problems. He agreed, and I set off with Freda and the salesman standing on the kerbside watching.

Everything went fine for a few minutes. Then, through the nearside driving mirror, I saw that I was being overtaken by another caravan. I pulled sharply over to the right, and then realized with some alarm that I had seen the overtaking caravan before. It was ours.

It pitched forward suddenly into the road, its towing bar dug into the ground. The towing knuckle had been attached to the rear bumper of the car, which wasn't strong enough.

Freda and I had to change our plans: we were due to travel to Folkestone that day, and had to leave the car and caravan to be properly fixed up.

On our return we collected our new mobile home and set out for Chester on a spring-like Sunday morning when it seemed that nothing in the world could possibly go wrong.

We noticed, however, that on the bumpy stretches of road the towbar was fouling. The scraping was uncomfortable to hear, but

Continued on page 61

Angel's Ransom

by ***DAVID DODGE***

ILLUSTRATED BY ZELINSKI

Herriot had promised. The yacht and his hostages would be free in three days. Then he became a murderer—with a boatload of witnesses

FREDDY FARR'S luxury yacht, the Angel, was drifting through the calm waters of the Mediterranean. Her captain, Jim Blake, was not on the bridge. He was in the saloon, watching helplessly as a criminal with a gun threatened his employer. . . .

Freddy Farr was an American millionaire. He liked drink, beautiful women and good company. That morning he had come aboard with a lovely Polish girl, Valentina Walowska, and an Italian couple, the di Luccas. He had no idea, then, of the danger to come.

The criminal, Herriot, was quite ruthless. He had seized the Angel after tricking Blake into sending his crew on a fool's errand. To get aboard the boat, Herriot made use of an English girl, Marian Ellis. He persuaded her that his aim was merely to serve a writ—the papers were full of the Belgian baroness who was claiming that Freddy had given her the Angel.

In fact, Herriot was after money—100,000 dollars. And he would kill without a qualm to get it. His plan was quite simple. He would force Freddy to make out a cheque on his Swiss bank, payable to Herriot's man, Roche—and to back it with a letter in his own hand. While Roche was cashing the cheque, the Angel would put to sea—until Herriot could collect.

So far, everything had gone perfectly for him. Blake's attempt to wreck the Angel as it left Monte Carlo had been foiled—and earned Blake a savage beating. Now Herriot held Freddy and his guests at gun-point. Already, Freddy had written the letter. Next: the cheque.

Freddy shook his head, laid down his pen, and folded his hands on the desk in a gesture of finality. "No dice," he said. . . .

PART TWO

The Reluctant Policeman

ONLY Freddy Farr, because Herriot stood to one side and behind him, failed to see the beginning of the blow the gang leader struck. To the others it was an action as calculated and as unemotional as the driving of a nail. The heavy pistol rose and fell like a hammer on the unprotected hands clasped on the desk top. Freddy screamed and screamed again.

"Take him below and pull him together," Herriot told Blake. "We'll try again later."

Everyone except Freddy was staring at Herriot in shocked silence. Blake felt the blood pounding in his head as his anger mounted. But there was nothing he could do but obey.

He went over to Freddy. "Come on, old chap," he said quietly. "You'd better let me try and fix you up."

By the time Blake got him below, Freddy was suffering more from shock than anything else. Roche went along to stand guard in the doorway of Blake's cabin while he did what he could for Freddy with the contents of a first-aid kit. The other prisoners had been hustled to their own cabins by Jules and locked in.

"The guy is crazy, Jim," Freddy moaned. "Get me a drink. I need a drink."

"You'll have to wait. There isn't anything here."

He examined Freddy's hands. It was the left one that had taken the brunt of the blow. It was bruised and bleeding, and the wrist looked badly sprained, but no bones were broken. Blake bound up the wrist and fixed the arm in a sling to make it more comfortable.

Freddy's already grey face lost another shade of colour when Blake told him how Herriot had got aboard. "Damn that girl," he spluttered. "It's all her fault."

"It's not all her fault," Blake said. "She was tricked, as I was. It's up to you whether you sign that cheque or not, but don't let's start accusing each other. We're all in the same mess."

"It's me that stands to lose all the money," Freddy snapped.

"You can afford it."

Roche came in then to march them back to the saloon. "That's all," he said with finality. "Get out of there." He gestured with the pistol, stepping warily aside to let them come into the passageway.

Except for Herriot, the saloon was empty. Herriot stood by the desk on which the pale blue cheque and a photo-copy lay. Freddy went immediately to the sliding panel that hid the bar. It did not move when he tried to pull it open.

Herriot said smoothly: "It's locked, Mr. Farr."

"I've got to have a drink."

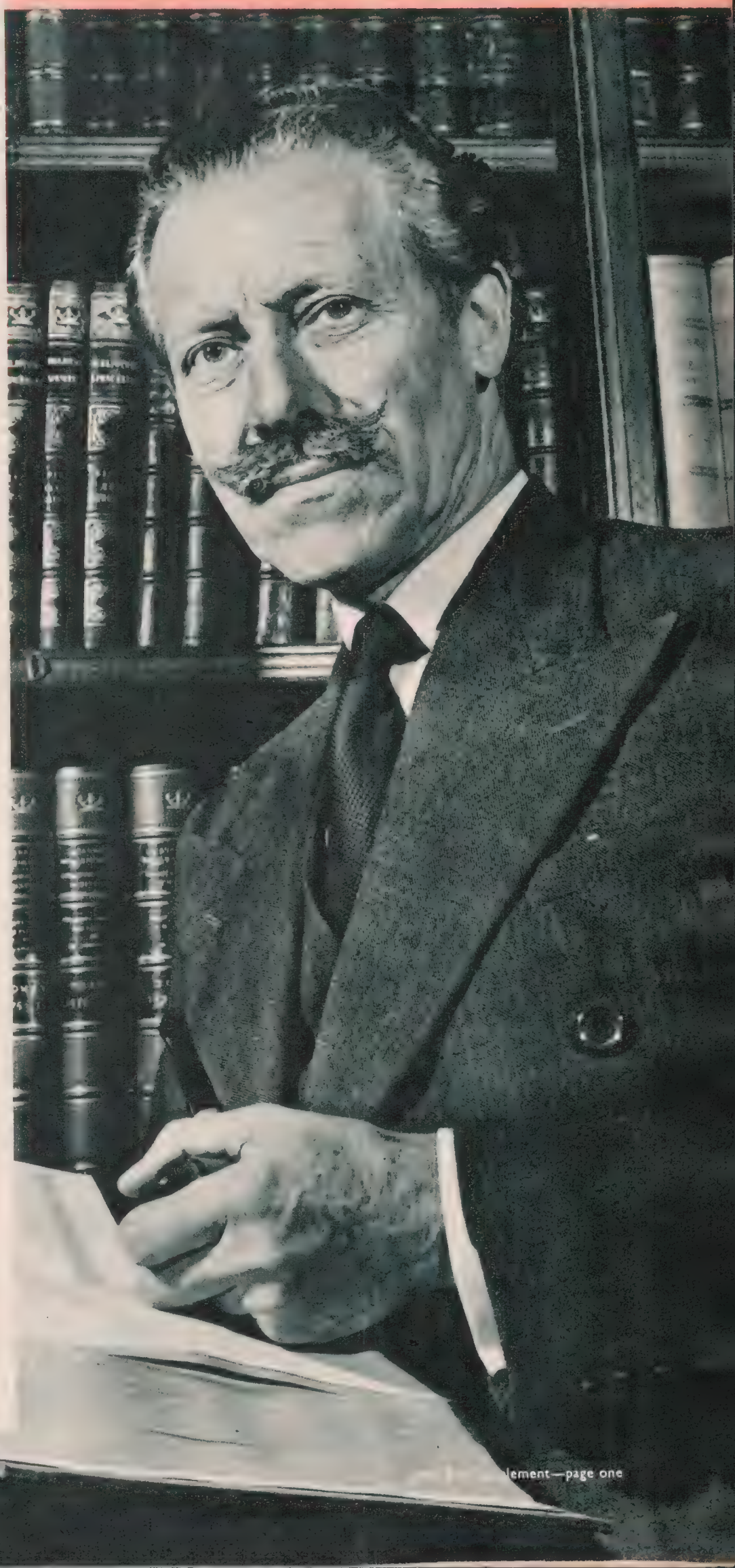
Herriot said: "We will go on from where we were interrupted, Mr. Farr. You may have a drink afterwards."

Freddy was sweating heavily when he took his seat at the desk. He looked at the photo-copy before him and signed with extreme care. Herriot was equally careful in comparing the signature with the photo-copy. Satisfied, he gave the cheque to Roche. "Take the captain

Neyrolle clasped his hands. "Now," he said, "I should like to ask you some questions." Samson stiffened . . .

SCIENCE, SPACE and the FUTURE

Sir Mortimer Wheeler introduces a guide to our fabulous tomorrow



IN the first of these two Supplements some account was given of current or recent advances in knowledge and its application. The present section will include a reasoned attempt to forecast certain of the likely developments of the next few decades and to exchange history for prophecy. That is a dangerous venture. Theory does not always work out in practice, and accident is an important accessory to discovery. But it is happily human nature to look ahead, whether we are merely walking down the street or are planning a journey to Mars. Curiosity in the present finds its inevitable counterpart in curiosity for the future, and we are all, in less or greater measure, visionaries.

A journey to Mars: is that likely to be feasible in the foreseeable future? It is no good asking whether such a journey is really necessary. If it becomes feasible it will be done. And scientists are not at present prepared to say that it cannot be done, though strip-cartoons of gallant or villainous spacemen are not a contribution to the problem.

In more serious vein, such trifling matters as the construction of stations in the outer space, where (we are told) rocket-borne passengers from the earth may be transferred to space-ships for the long journey through the void, require immeasurably more thought and experiment than have yet been given to them, although that is not a little. One thing is certain, the pioneers in this experimental process will be the most intrepid heroes in human history.

But apart from flamboyant adventuring, what are the prospects of advancing knowledge during the years to come in matters of immediate utility?

In medicine no doubt the complex disease which we simplify under the name of cancer will be greatly reduced in its incidence or at any rate in its effect. Here, as previously in the history of healing, some element of chance may suddenly reinforce the devoted energies of research. "Chance" is not perhaps a very good word; it is equally important that minds shall be prepared to seize the "chance" when it is offered, and the degree of receptivity involved may easily amount to genius.

Then there are the vast and pressing questions of the world's population in relation to the world's food supply. Scientific and administrative improvements in medical treatment are preserving the lives of thousands of people who, only a very few years ago, would have died of injury or disease. In the depths of the African bush I have found little hospitals or first-aid stations where simple but often effective

PULL OUT THESE EIGHT SUPPLEMENT PAGES AND KEEP FOR REFERENCE

medicine and surgery are doled out daily to the bush-folk.

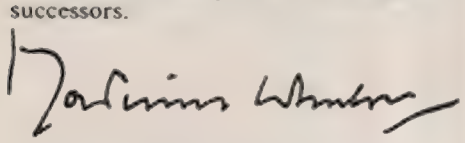
But it is often easier and quicker to save a man's life than to feed him. Today it is said that the world's population is increasing by more than thirty-five millions a year, a total certainly in excess of the increase of food production.

If we abolish plagues and (ultimately) wars, what are we going to do on the more positive side of maintenance? Alter the impact of rainfall, so that desert areas may be brought under cultivation? Science is trying to do this in a variety of ways, but the process is fraught with difficulty, particularly since it may merely result in the "borrowing" of rain from one region for the benefit of another. We can almost foresee governments of the future (though scarcely that of Great Britain) "nationalizing" their rain. Other methods include the increasing fertilization of poor soils by a wide range of chemical applications (only nine per cent of the surface of the earth, outside the Poles, is at present cultivated); the wiser selection and apportionment of crops; and the production of synthetic substitutes for natural products. Science is busy upon all these problems, but it is a race with widespread misery and incalculable political and moral reaction.

Behind all these and many other difficulties of the modern age, man is pinning his hopes and his fears to an almost pathetic degree upon the developing utilization of atomic or nuclear energy.

It is less than twenty years since the first splitting of the uranium atom released the terrific energy which the atom had long been known to contain. Less than six years later that energy flattened Hiroshima. Now we are beginning to produce power for normal industrial and domestic purposes by means of an uranium power-plant.

Within twenty years from now, nearly half of our electricity will be generated by atomic power. The economic revolution which lies behind that bare statement will reach into many corners of our national life. It is certainly worthy of a moment's thought and preparation, and these must be based on knowledge and on the foresight that comes from knowledge. Once more I commend to you the opportunity which JOHN BULL here offers to you, of glancing into the present achievement and future potential of modern science in its wider context, as affecting you and me personally and, even more nearly, our immediate successors.



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ON THE THRESHOLD OF A GREAT NEW WORLD

SCIENTIFIC achievements of the past few decades have been colossal—atomic energy, the wonders of radar and television, the electronic brain, supersonic aircraft. Yet by the year 2000 man may have landed on the moon, colonized Antarctica, learned to create the climate he wants, harnessed the power of the sun, conquered almost all diseases.

The achievements are the stupendous products of scientific research. Their effects on people's lives are enormous; but the way they are achieved is often the result of the scientist's understanding of almost inconceivably minute particles. The fantastic power of the hydrogen bomb is derived from the fusion of two tiny atoms of hydrogen—so small that, even with a modern microscope magnifying nearly three million times, nobody has ever seen one.

More than ever before, scientists are probing deep into the very heart of matter. In the undiscovered secrets of atoms and molecules lies the answer to nearly every question—how animals grow, why some metals are stronger than others, what causes men to go bald, or why silicones resist water.

Until scientists invented the electron and the ion microscopes, and machines to measure the refraction of light through crystals, this kind of research was scarcely possible. But today it is helping to break down the old, often artificial, barriers between physics, chemistry and biology, and bringing a new sense of unity to the sciences.

The chemist combines atoms or molecules to make new substances. But it is the work of the physicist to find out exactly what magnetic and electric forces are hidden inside the atom. And his work will provide the chemist with short cuts towards knowledge of what will happen when any two substances are mixed.

Almost every country in the world is intensifying research. The Southwest Research Centre of America is building a fifty million dollar Science City near San Antonio, Texas. Here work will be co-ordinated in an atmosphere of pure research. More than two thousand homes will be served by their own schools, churches and a shopping centre. Scientists will be able to live and work on the problems of the future unhampered by concern with present-day production difficulties.

In Britain, too, scientific research is taking on a new importance. Government and industry are estimated to spend £300 million a year on research.

There is a gradually increasing proportion of university students wanting to take science degrees. Industries, some of which owe their existence to scientific development, are repaying the debt by promoting and financing new research.

Man's dependence on the sciences is certain to increase. By the year 2050, power required by the world may be thirty times what it is now. It will be needed not only in industry, but to power machines which may be used to drag minerals from the bottom of the sea—minerals whose surface deposits on earth will have been exhausted. Nuclear science will supply the power.

AERONAUTICS

FLIGHT at supersonic speeds is a commonplace to the test pilot of 1956. But for aircraft designers, conquest of the sound barrier marks only one stage in their advanced research. The air-liner of tomorrow will streak through at least another five barriers, each a major challenge to the science of aeronautics.

The fatigue barrier has been known to the designer for many years, but now looms large over the drawing-boards with the constant development of high-speed flight. In normal flight an aircraft is subjected to various stresses, small in relation to the overall strength of the structure but which are repeated an enormous number of times. As speeds increase the strain is greatly intensified. The result is metal fatigue, causing wings and fuselage to crack without warning.

Britain has led the way in this research since tests revealed that metal fatigue caused the Comet disasters in 1954. Work at that time to reproduce flying conditions on the test-bed brought about the construction of a giant pressurized water tank at the Royal Aircraft Establishment, Farnborough. Now a representative aeroplane of each type coming into service is placed inside the tank and subjected to a sustained spell of all known stresses.

The heat barrier is the most spectacular stage of supersonic speed. Air friction causes a temperature increase at about the square of a plane's velocity—enough to melt away the wings and fuselage of conventional aircraft. Conditions to be experienced at many times the speed of sound are staged in new £25-million wind tunnel equipment at Farnborough. The inside walls of the tunnels are so silkily smooth that even a postage stamp would upset the even balance of flow. Discoveries made here and at similar research centres throughout the world are helping in the search for a wonder light alloy—able to retain its stiffness and strength at peak temperatures. But no single solution, no dramatic passing of the "barrier," can be hoped for. The magnitude of the problem increases with the speed.

The G-barrier calls for man to defy the limits of human endurance. Fierce acceleration or sudden turns at high speed impose crushing centrifugal force—known as G forces—on modern airmen. American scientists have already achieved remarkable success after extensive research in this field. Centrifugal force experiments have been conducted with volunteers in miniature spaceships which whirl around on the ends of a fifty-foot arm—able to apply up to ten times the force of gravity (ten Gs). At four Gs, a pilot's face becomes distorted and he is liable to a black-out from a downward force or a more serious "red-out" as blood rushes to his head through an upward pull. When an airman came to a halt in one and a half seconds after riding a rocket-propelled sledge along rails at 632 m.p.h., he had a pair of black eyes as a result of the force with which his eyeballs had hit the inside of the lids.

But airmen will be able to pass through the G-barrier in comfort, wearing a suit devised by U.S. specialists in aviation medicine. The suit incorporates five pneumatic bladders—one on the calf of each leg, one on each thigh and one on the abdomen—which inflate automatically during times of stress. They exert pressure on principal arteries and veins to prevent a rush of blood to one part of the body.

To defeat the altitude barrier, the aircraft designer must bridge two extremes. Above 65,000 feet, a man's blood will boil while his skin is frost-bitten. The answer has been found in the development of pressurized, air-conditioned, temperature-stabilized and humidity-controlled cabins. These take a constant, temperate climate up into the sparsest atmosphere. An air passenger can travel at three times the height of Mount Everest in shirt-sleeves.

The vision barrier is encountered when an aircraft moves too fast for the human eye to pick a path through the skies. Science triumphs again by planning to pack a mass of radar and electronic equipment into the airliner of the future.

For some years, however, commercial aircraft will travel at subsonic pace. Immediate emphasis in aeronautics is on producing economic performance from existing craft rather than introducing revolutionary designs. Dramatic progress is being made in increasing the "lift" of aeroplanes. Some aircraft are being fitted with booster rocket motors, using liquid propellants, to aid in take-off and provide acceleration in flight. Vertical lift can be provided by either the helicopter or "flying bedstead" principles, although up to fifty auxiliary jet engines would be required to push a long-range airliner straight up into the air.

One idea calls for part of the jet thrust to be deflected downwards. Another plan has the whole of the engine efflux ejected downwards from the trailing edge of the wing—forming a "jet sheet." This is a British invention and its application will introduce a sensational conception of control, the plane remaining substantially level at all times as the height is varied by the jet thrust and lift.

A further method being tested is that of laminarization, in which pumps operated by the engines suck air through tiny holes in the wings—and perhaps the fuselage. This removes the thick turbulent layer of air set up around the aeroplane, and which causes friction and drag. Laminarization holds the promise of huge economies in fuel. A non-stop Atlantic jetliner could carry a fourteen-ton payload for a gross weight of 17,000 pounds instead of the 280,000 pounds required at present. It could cruise at 550 m.p.h. on only two engines instead of four.

The flying boat may be the first aircraft adapted for atomic power when A-planes begin to appear in the late 1970s. It could best overcome the considerable weight at present forecast for an aeroplane reactor. Designers have to provide a shield against radiation to match the eight feet of concrete and several inches of steel employed around a stationary atom plant. One answer is to develop A-planes first as long-distance freighters—without even a crew. This "push button" flying was pioneered nearly ten years ago when an American transport crossed the Atlantic, taking off and landing entirely by remote control.

But man will eventually find a way of taking his place in the A-plane. Before the end of the century he will fly through the air at 3,000 m.p.h.

ROCKETS

THE long-range aeroplane faces an exciting rival in the inter-continental rocket. Its development over the next twenty-five years will represent a leap from aeronautics into the realms of ballistics. Travellers who take to the rocket will be fired to their destinations faster than a bullet.

The commercial inter-continental rocket will be a peaceful descendent of the V2, constructed to carry people or freight instead of a warhead. It will follow a similar course—climbing steeply into the fringes of outer space, then streaking along a path outside

First step to space—a pressure suit which protects a man at 100,000 feet

Rockets travel at 3,000 m.p.h. One day they may take people round the world

By operating on nerves in the brain surgeons can cure mental disorders

Earth's dense atmosphere before making the descent to ground.

Soviet designers are intent on producing an ambitious form of rocket-craft, able to reach an altitude of 330 miles or more, and almost as powerful as an interplanetary spaceship. They plan to make simultaneous progress in both fields by evolving a suitable atomic motor for rocket propulsion. American experts, however, feel that research on a nuclear power unit will cause unnecessary delay in the appearance of inter-continental rockets.

They are working to produce man's first ballistic flight with a conventional heat engine. Dr. Hubertus Strughold, chief of the U.S. Air Force's department of space medicine, believes a non-atomic rocket could climb more than a hundred miles and still circle the globe in two and a half hours.

Military experiments with guided missiles are leading the way. Britain is preparing a rocket able to cover eight hundred miles, the distance from London to Berlin, and later models which will travel twice as far. British research is concentrated on medium-range projectiles, but America is developing guided missiles able to cross the Atlantic or North Pacific.

Once the inter-continental rocket's accuracy and efficiency have been established, it will have immediate—although costly—possibilities for non-military purposes. The fastest vehicle ever to travel about the earth will be at the service of man. In the transport of freight, it offers the express delivery of the future. As a mail carrier, it will take letters to New York faster than a telegram can cross London. A postal service by rocket has been under consideration in Britain since 1934. First experiments were carried out before Post Office observers in the Hebrides. A German-designed rocket then failed to bridge a channel between two Scottish islands. Ten years later, the V2 was crossing the North Sea. Now, the transatlantic rocket is expected in the next three or four years—and the first passenger model by the early 1980s.

Travellers of the ballistics age will be enclosed in a ship moving fast enough to burn itself out on the last stage of its journey. The outer shell will be packed with elaborate insulation and cooling equipment to protect the passengers from this intense heat—set up by friction as the rocket encounters air resistance on re-entering the atmosphere. The crew will merely monitor banks of instruments which will perform automatically the split-second navigation and control required to pin-point a destination at many times the speed of sound.

Methods of landing are still the subject of tests. At present, the rocket is expected to touch down either in a shallow glide—perhaps using parachutes as a brake—or vertically on to its tail, with the motor thrust applied downwards to check the descent.

Rocket travel will be a fantastic experience, with hundreds of miles squeezed into minutes. Passengers would have a satellite's view of Earth—if their cabin were not a completely sealed cylinder without any windows. A television screen could show the thousands of square miles of land and sea unrolling beneath them. But rocket travellers are most likely to be anaesthetized before take-off. With the entire payload sleeping peacefully in bunks, more passengers can be accommodated, and they will not be conscious of any gravitational stresses during flight.

In this way, the voyager will close his eyes in London and open them again in Australia only an hour or so later. And man will be only a long blink from anywhere in the world.

HEALTH

After adding years to life, science now plans to add life to those extra years. Having largely conquered disease, doctors are pressing forward to victory over decay. Future efforts in medicine and surgery will be devoted to rolling back the frontiers of old age—giving man the vigour to enjoy his increased life-span.

Already, experts believe modern nutrition and medical protection have given man a constitution strong enough for him to live to be 120. But at present most of those people fortunate enough to enter old age without succumbing to cancer or heart disease quickly experience an overall degeneration of their physical and mental powers. More people than ever before are staying alive to see their hundredth birthday, but few have the vitality actually to celebrate the event.

So research throughout the world is being devoted to establishing the cause and process of human decay, finding out why so many men and women enter their sixties in active good health, yet leave them as semi-invalids. New York doctors claim significant results from experiments with men aged between seventy and ninety. After being given a mixture of steroids—base of many of the body's hormones—and vitamins, the old men were more active than before. And many of them had increased their waning muscular power by as much as fifty per cent.

At the present rate of progress, scientists are confident that before the end of the century they will have the means to arrest all the chemical changes causing degeneration. By then—and perhaps in the process—cancer will have been overcome, enabling millions more to enjoy active longevity.

Their safeguards against infection will be sure as medicine completes its range of antibiotics and vaccines against every known bacteria and virus. Surgery will have perfected its repairs of the body's vital organs. Heart disease, that other great killer of the aged, will lose its sting. A better understanding of how the heart works may allow the prevention of much heart disease that today appears inevitable. More and more elaborate surgical repair work will become possible with the development of the mechanical heart-lung. This machine already exists in experimental form, taking over from a patient's heart for up to twenty-five minutes. Future models will keep the human body alive almost indefinitely while the surgeon probes the inmost corners of the human heart. Coronary thrombosis will be cured as clotted arteries are removed and replaced by new lengths of artery.

Another great step forward will be the introduction of a fully effective artificial kidney, able to filter all the unwanted water salts and waste products from the 1,700 quarts of blood passing around the body daily. The first kidney machine, built in Holland during the war, was large and primitive—employing fifty yards of sausage skin, a drum, a full-size enamel bath, and the cooling system from an old Ford engine. But, in a limited way, it worked. Later versions have been streamlined down to the portable models, which saved the lives of many badly wounded soldiers in Korea. The artificial kidney of the future will have an even wider range of efficiency.

Dramatic results will be achieved through large-scale production of synthetic blood able to carry out the work of natural plasma. When transfusions can be produced to order, operations on patients of a rare blood group will no longer depend on a desperate search for donors.

Developments in anaesthetics will enable the aged to undergo the most advanced surgical work. Yet until recent years even ingrowing toenails could be a death sentence for an elderly person. Doctors dared not operate because they feared that the patient would not survive the heavy anaesthetics then in use. Now people of over a hundred regularly return alive and well from the operating table—thanks to the modern combination of a light gas, muscle-relaxing injection, and temperature reduction.

Experiments in deep-freeze anaesthesia hold spectacular promise in the drive to bring new life into old age. Rendered completely dormant at zero temperature, the most aged patients will be able to defy bodily wear and tear by undergoing replacement surgery. Organs which are beginning to run down will be removed and fresh ones substituted from a refrigerator bank of spare parts. A tired old man will return to life from this artificial hibernation with literally a new heart.

MENTAL HEALTH

The perfect baby—to order. Science will one day guarantee not only the sex of an unborn child, but the colour of his eyes, the shape of his nose, whether he will have straight or curly hair. . . . Even more important, the same knowledge will be used to reshape the future of babies destined to end their days in a mental hospital.

Recent discoveries in genetics suggest new hope for millions in the battle against diseases of the mind. At least two-thirds of the world's population have a family history including some major nervous or mental illness. As some conditions, including certain forms of schizophrenia, are known to be hereditary, many children are threatened from before birth with troubles of the mind. But research workers are becoming able to reduce man's hereditary characteristics to a chemical formula. This entails examination of the genes, carried on the stalk-like chromosomes within the nucleus of the human sex cell. And there are hundreds of separate genes on each of the forty-six chromosomes inside a cell the size of this full stop.

Elimination of hereditary dangers will be of immense value to the psychiatrist. At present he co-ordinates the skills of a dozen different sciences in treating hundreds of millions of mental or nervous cases—the greatest single category of ill-health in the world today. Results are near-miraculous compared with only a few decades ago, but a far greater triumph would be the wholesale prevention of mind disorders. Genetics have a great part to play in this field.

Another promising line of approach has been opened up in psychiatry by studies of the relationship between certain types of physical structure and certain personality characteristics—and the sort of illness to which they are prone. This idea was once discredited through attempts to pick out the "criminal type" by personal build and appearance. But British and American doctors have now produced interesting findings after classifying the individual into one of three physical groups: fat, thin and sportsman. Emotional disorders, such as severe depression, were found to be more common among the first group, and schizophrenia more prevalent among the other two groups. These results are proving specially helpful in another sphere of prevention—the attack on neurotic and criminal tendencies among children.

The close connection between physical and mental processes is forming the basis of much psychiatric research. Methods of measuring electric activity in the brain and oxygen saturation in the bloodstream now enable scientists to record the physical stages of changes in consciousness. But psychiatrists face a vast task in unravelling the secrets of the body's nervous system. The brain, weighing only three pounds, is inundated with messages travelling up to three hundred miles per hour from the ears' hundred thousand auditory cells, the 130 million light receptors in each eye, the three thousand taste buds on the tongue, the skin's 30,000 heat spots, 250,000 cold receptors, and half a million touch spots. . . .

Brain surgery is still rather primitive, although it is the most spectacular form of psychiatric treatment. The most extensive treatment is at present being afforded by the humble pill, consumed by the billion these days.

Great results were expected when scientists began to produce drugs capable of influencing human emotions. They fell into two categories—"boosters" to liven up the mental and body systems, and "tranquilizers" to induce sleep, or a feeling of confidence and well-being. These discoveries led to the development of a tremendous range of proprietary drugs, now finding their way into handbags and pockets to produce artificial gaiety, confidence—and even sun tan. More and more new pills are on the way, for science is still only on the fringe of this chemical mood-control.

But doctors are becoming increasingly alarmed by the ill-advised and indiscriminate use of drugs among the general public. Thirty-five million Americans a year are turning to tranquilizers for relief from everyday tension, regardless of possibly dangerous side effects. Chlorpromazine, for example, has brought about spectacular recoveries among paranoic schizophrenics—when applied under direct hospital supervision. Without medical care, however, it can cause jaundice and make people accident prone.

To counteract this situation, the laboratories are now producing "half-way" drugs by blending in other chemicals to cancel out the ill effects. Mixtures of drugs are being sought which will make people work harder, better and longer, without feeling tired. Methylpentynol "confidence capsules" are known to be safe if properly prescribed and not taken in excessive quantities. They help politicians to make speeches, learner-drivers to take their test, dentists' patients to face the drill, and even sustain dogs in their ordeal by fireworks on November 5.

Psychiatry is advancing on many different fronts. The new wonder pills, despite their occasional misuse, promise great benefits once scientists know exactly how they work. Their improvement proceeds ceaselessly. And in the laboratory's search for synthetic happiness, science may yet uncover the real key to man's natural emotions.

ADVENTURE INTO SPACE

MAN may have landed on the moon by 1980. The first lunar travellers face a 238,860 mile voyage—with many of the greatest challenges within the first few hundred miles of leaving Earth. Only fifteen miles from ground level, while still in the zone of ordinary sunlight, they would find the atmosphere so thin that without a pressurized cabin a man's blood would boil. The next belt of the atmosphere, about five miles thick (the illustration is not to scale), comprises a mixture of increasingly rarefied air and ozone, which absorbs most ultra violet light. Beyond this screen, a man's eyes would blister in his head if he looked straight into the sun.

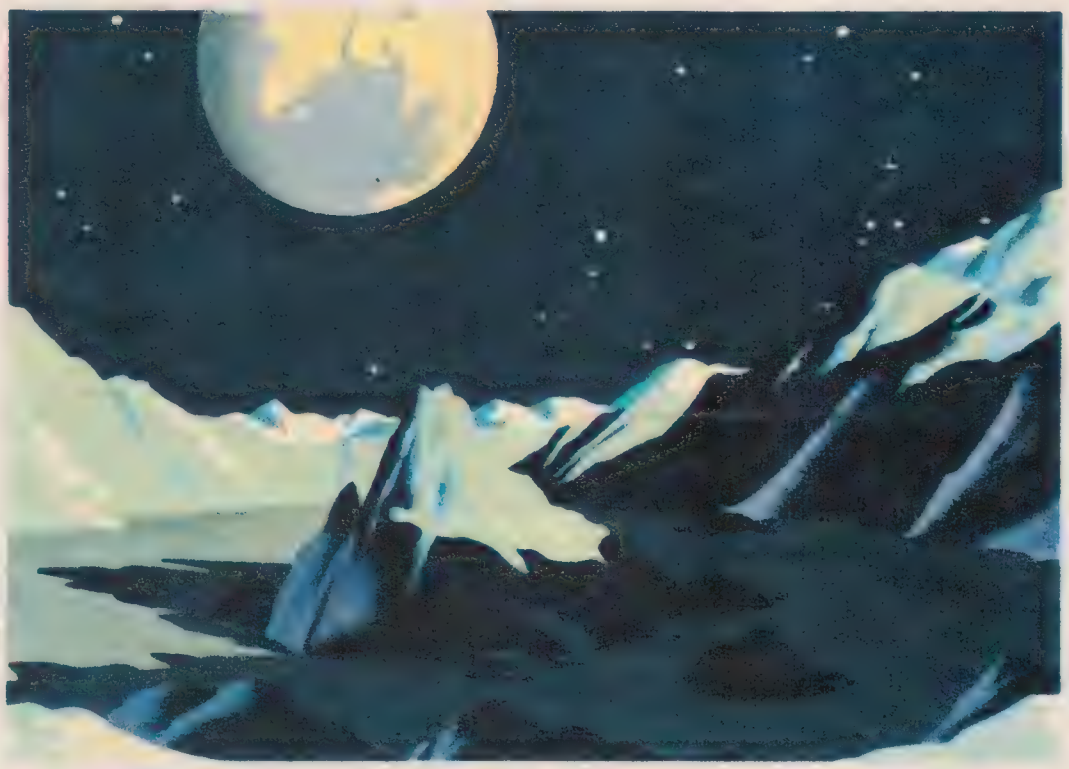
Between sixty and eighty miles out, the atmosphere is extremely sparse, but still dense enough to burn up the meteors which hurtle towards Earth from outer space. After this stage, rocketships will be liable to encounter hails of these tiny particles—no bigger than pinheads but travelling at deadly speed through the silent black sky.

From 120 to 220 miles, the atmosphere is electrically charged, and reflects certain radio waves. Beyond this layer, the spacecraft's crew may have to adjust their radios to maintain contact with Earth.

ERE EXTENDS

EARTH TO MOON
238,860 MILES

600 MILES UP



THE moon has two different worlds on its jagged, lonely surface — only a quarter the size of Earth. The mysterious far side, for ever hidden from us, is far colder than a Siberian winter. Its darkness is only slightly relieved by the glow of Earth itself. Yet the face whose contours are so well-known to astronomers is bathed in brilliant sunlight and is hotter than boiling water. The fortnight-long lunar day is always sunny, for the moon has no atmosphere—and no weather. The moon's only showers are of meteors which arrive at up to forty miles a second. Lunar gravity is only one-sixth as strong as Earth's and a man would be able to jump twenty feet high.

S. HERBERT

MINERAL WEALTH

RAPIDLY developing methods of geophysical prospecting have come to the world's aid in its search for new mineral resources. Every day geophysicists are using these methods to probe the hidden activities of the earth's interior.

Near the surface the earth is made up of various types of rock, and their disposition may be related to the minerals likely to be found in any area. Fortunately for the geophysicist, the rock structure also affects the gravitational attraction at the surface of the earth and influences the course of artificially produced earthquake waves. Geophysics uses its knowledge of these effects to discover what lies below the surface. Gravity is measured by recording at various points minute changes in the weight of a small piece of gold (or quartz). The changes are caused by the density of the rocks which attract the gold from below.

Artificial earthquake waves are produced by detonating a charge of dynamite in a shallow boring. The speed at which the waves travel through rocks, measured by seismographs, tells the geophysicist with which type of rock he is dealing.

A third effect of the geological structure is to cause irregularities in the conduction of a current of electricity. The current is passed through the ground and changes in it are measured. If there is little resistance, then the presence of mercury, lead, copper or silver may be indicated; greater resistance could suggest a hard compact rock such as granite.

By extending these methods in the future, geophysicists hope to locate ores at much greater depths than now. At nine thousand feet the Rand goldmines are the world's deepest. When geophysicists have discovered ores at depths greater than this, new problems of mining at such depths will have to be solved.

The search for new mineral resources is vital. As populations grow and industrialization increases, the consumption of minerals grows to staggering proportions. Great inroads are made into the world's reserves. The known reserves of zinc, lead and tin will last no more than thirty years.

Aerial surveys are playing an ever greater part in prospecting for uranium and thorium, radio-active minerals vital in the atom age. The search is particularly intense in the Blind River region of Ontario, the Rum Jungle area of Australia, and parts of the United States and Siberia. Planes flying below six hundred feet carry scintillation counters, in which radio-active rocks will cause special phosphors to light up momentarily and will activate a photomultiplier cell to record the intensity of radioactivity.

Modern geology has for its aim the deciphering of the whole evolution of the earth from its origin more than three thousand million years ago. A study of the magnetism of rocks over the last 150 years has produced astounding theories: for instance that Britain has moved a long way northward in the last 150 million years from a position about ten degrees north of the equator, and is moving nearer the North Pole at the rate of about a quarter of an inch a year.

THE NEW POWERS

SUNLIGHT could supply the world's power needs for ever. So vast is the energy poured out daily from sun to earth that only a fraction of it need be usefully harnessed. Each hour, solar energy reaching the earth equals the energy of 21,000 million tons of coal. To find ways of using it would be an achievement dwarfing any other power discovery made by man.

Already, America has made dramatic progress. The new chemical, silicon, has been used to produce electricity from light. First, a banana-shaped crystal was grown, and then cut into wafer-like strips. These were joined in electrical series, and when exposed to bright sunlight produced electricity at eleven per cent of the maximum theoretical efficiency (compared with 0.5 per cent efficiency for the only other known method, the photo-electric cell).

The cost is enormous: £3,000 for a 12-volt battery. But costs will fall dramatically when it is possible (as scientists now confidently predict) to spray silicons on a surface as a crystalline metallic varnish. A roof made of sun-absorbing silicon could generate all the power a house needed when the sun was shining; for use in countries such as Britain, practicable ways would have to be found to store surplus power for use during cloudy weather.

The major problem in trapping both the light and the heat of the sun is their diffuseness. A square yard of the silicon battery produces only enough electricity to power a small radio. To use the heat, it is usually necessary to focus the sun's rays inside a concave mirror. Already there are giant experimental reflectors in America and France which concentrate the heat in huge, shining bowls—in which the heat of the sun will melt metal bars at temperatures of around 9,000 degrees Fahrenheit. Smaller reflectors, which provide enough heat to boil water and to cook, are numerous in India and North Africa.

The heat pump, a modern development of an old scientific principle, is an invention which may soon be warming houses and factories by one of the most efficient methods known. The theory behind it is that everything contains heat. By compression, this heat can be made to come surging out. In a bicycle pump, for instance, compression of the air makes the connector hot.

The heat from the water in the Thames would be sufficient to warm all London's houses if a machine could be made to extract it. Or pipes running a few feet below the surface of a garden could draw off enough heat from the ground to warm a household.

Already there is a manufactured domestic heat pump which gives constant hot water at less than the cost of old methods. It costs about £160 to install but uses only ten units of electricity a day. The principle is that of a refrigerator in reverse. Gases are compressed to release heat, which warms the water. When they expand again, they are cooler, and perform a secondary function of keeping at a constant low temperature the room in which the heat pump is installed.

Deep tropical seas are rich in potential power. The surface water is warm, but the depths are hardly above freezing. If these two layers are drawn off and kept separate in a large container, with a partial vacuum between them, enough steam is produced to drive a generator. The French Government is backing a £1,500,000 project to utilize this power source on the Ivory Coast in French West Africa. The cost should be little more than power produced by hydro-electricity.

France has another bold scheme to use the latent power of tides. Previously, the difficulty of harnessing the inrush and outrush of tides, which is more than enough to drive a generator, was that more often than not the tides would be generating the electricity at an hour when it was not needed, and there was no way of storing it. The French claim to have solved this with an ingenious generator which can also act as a pump and a safety valve. If the tide occurs at a peak hour for electricity consumption, the generator works direct from the power of the moving sea. If it comes at an off-peak hour, the generator is used to pump up the level of the sea inside a dam. Then this water can be released at a peak hour to drive the generator and create electricity.

A pilot plant using this system is being built in an estuary in Brittany. Even this will save 500,000 tons of coal a year. An enormous second project is planned in the same area which will cut off the whole of a bay with a dam twenty-three miles long, creating a basin of about three hundred square miles. It would contain 1,200 turbine generators, producing half the total electric power used in France today.

Windpower is another great source of energy. Some scientists believe that parts of the Sahara could be made to bloom if the desert winds could be harnessed by windmills and used for irrigation. One of the biggest problems is how to deal with gusts of variable strength, which cause vibrations and metal fatigue, but new metals may bring a solution.

Sun, latent heat, tides and winds are all known elements. But a bigger source of heat than any of these has yet to yield up its mystery: what goes on just fifty miles below the earth's surface? Experts no longer believe that the earth is filled with a raging, fiery torrent like Dante's Hell. Seismograph recordings make it almost certain that the centre of the earth is solid. But somehow tremendous heat is contained by the thin shell of rock round the outside of the earth.

So far man has dug only a few miles into the crust. But one day, the uncontrolled violence of volcanoes may give way to controlled eruptions, harnessed to give a never-ending supply of heat and power.

ELECTRONICS

THE motorist of the electronic future may be a back-seat non-driver, watching television while a robot chauffeur does the work. Atomic or jet-powered cars may steer their own course along the busy motorways, guided by a pattern of cables laid a few inches beneath the surface of the road.

One line of cable would be a suitable distance out from the kerb, giving off a constant series of signals. These would be received by a pick-up on the nearside bottom of the car and passed on to the robot chauffeur's electronic brain. The signals would keep the car in position over the cable, automatically regulating its speed and distance from the vehicle in front.

With streams of cars and lorries regularly spaced out and travelling at a general speed, traffic of the electronics age would flow with conveyor belt smoothness. But vehicles would not blindly follow each other's tails. A system of ultrasonic and infra-red rays would give instant warning if the car ahead halted, or if something appeared in the road.

In such a situation, the robot chauffeur would display uncanny initiative. Checking front and rear with radar to make sure that it was safe to overtake, the electronic brain would switch to a second pick-up, positioned on the offside bottom of the car, and would come under the direction of a crossover line, switching the vehicle to a cable running beneath a central lane in the motorway. Once clear of the obstruction, the car would revert to its nearside pick-up and be steered back towards the kerb.

The sharpness of an approaching bend would be indicated by a change in the cable signals, and the robot chauffeur would slow down accordingly. As each highway would give off its own code in the form of a distinctive pattern of magnetic studs at intervals along the road, automatic navigation would be possible. A complete knowledge of the country's road system would be fed into the electronic brain during the car's construction. The owner would merely indicate his destination and his robot chauffeur would pick out the best route to take. If for some unforeseen reason a selected route were blocked, it would not be beyond him to choose the most convenient diversion.

Within the next decade, applied electronics will become as familiar as electricity itself. Experts have long been aware of the magic at their command, but until recent years the necessary equipment was too cumbersome and too costly for domestic use. Development of the transistor and the circuit printed in copper on a plastic base has now made possible an immense array of midget marvels —table-sized computers, flat TV sets, pocket tape-recorders, hand-carried radar for the blind, pencil-thin hearing aids for the deaf. . . .

Tests show that the transistor can operate on a millionth of the minimum power required for a valve and can last a hundred thousand times longer. With nothing to warm up, the transistor springs to full life the instant it is switched on.

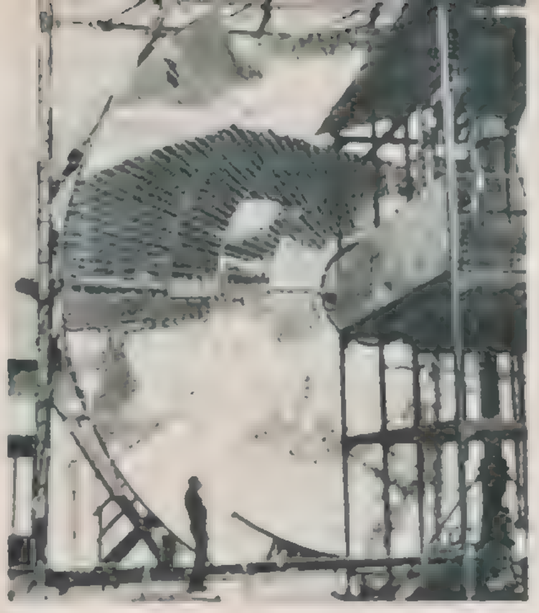
Despite the intense activity in this revolutionary sphere of electronics over the past eight years, research into semi-conductors is still only in the fundamental stage. Other materials are known to have breathtaking possibilities. Some give off light when power is applied, others give out power when light is applied. The home of the future may be illuminated by whole ceilings instead of individual lamps. Families will be able to make their own film shows with a tape-recorder incorporating oxide particles. Without any processing it will play back a full-colour picture with soundtrack.

PHYSICS

DURING the past year, physicists have three times excited the world of science by identifying in the laboratory a type of fundamental particle long believed to exist but hitherto undetected. All were magnificent scientific achievements opening the way to further understanding of nuclear forces.

The first particle discovered was the

Drilling for gold—nearly two miles down. And we may need to go deeper



The sun's heat, concentrated by this mirror, melts metal at 9,000 degrees

The Buick Centurion experimental car has TV instead of a rear-view mirror

The riddle of the universe may be solved in this electron accelerator

Helped by the electron microscope chemists may learn how to feed man

Scientists are probing the microbe world, aided by the TV microscope

mysterious anti-proton, which resembles an ordinary proton (present in the nuclei of all atoms) except that its electrical charge is negative instead of positive. The isolation of this new ingredient in matter has affected scientific reasoning about the smallest things in the universe (the sub-atomic particles) and the biggest thing (the universe itself).

According to the laws of electrodynamics, nature should be "symmetrical." There should be atoms with negative as well as positive nuclei. But for years after the discovery of atoms, all the evidence seemed intent on proving matter was unsymmetrical. The heavy, charged particles (protons) in the nuclei of atoms were always positive; the light particles surrounding the nuclei (electrons) were always negative.

The proof that anti-protons exist is a victory for believers in nature symmetry.

Scientists now assume that matter with its electrical charges reversed exists in the universe. This form of matter cannot exist for any length of time within reach of ordinary matter on earth, but some distant galaxies might be made of it. If a space ship from earth were to land on such a planet it would vanish in a puff of energy. For as soon as an anti-proton touches the nucleus of an atom it is annihilated. Both its own matter and the matter of a proton or neutron in the nucleus turn into a flash of energy.

The anti-proton had long been referred to as a "nuclear ghost" because its existence had been suspected but never proved. It was isolated last autumn by the world's most devastating atom-smasher, the £3 million bevatron at Berkeley University, California. A team of physicists used the bevatron to bombard a copper atom with protons carrying a charge of 6,200 million volts.

This year has brought the discovery of the neutrino and the anti-neutron, two other fundamental particles. The neutrino, an atomic particle so penetrating that it will pass through miles of solid matter, has long been thought to exist; now its identification confirms the validity of important aspects of current nuclear theory. Further experiments may reveal long-hidden secrets about the structure of matter.

The most striking property of the third particle, the anti-neutron, is that when it comes close to an ordinary neutron in the heart of an atom the two particles annihilate each other. At that instant the particle releases ten times more energy than that produced by a neutron in the reaction of an H-bomb. Its detection takes physics a step further in unravelling the inner structure of the nucleus, the heavy core of an atom.

The study of the phenomena which occur when atomic nuclei collide depends on the rapidly developing technique of accelerating the nuclei. Machines bombard atomic nuclei with other nuclei accelerated to tremendous speeds in a circular vacuum chamber.

Recently the atom - disintegrating synchrotron at California Institute of Technology accelerated electrons to a speed of 186,000 miles a second—only 324 miles a second behind the speed of light. When the machine is working the electrons traverse the vacuum chamber two million times—more than 37,000 miles in one-fifth of a second.

The faster the accelerator, the more energetic is the collision between the nuclei—and the more Man discovers about nuclear forces. Without the tremendous speeds which accelerators now produce, the anti-proton, the anti-neutron and the neutrino would have remained undetected. When accelerators become even faster, scientists will probe even deeper into the heart of nature. They may solve the mysteries of how mesons—particles produced when nuclei collide and which live one thousand millionth of a second—hold the nuclei together, filling in another gap in Man's understanding of the fundamental forces of nature.

CHEMISTRY

LAST year, in one of the most remarkable pieces of research in the history of chemistry, scientists made the first complete analysis of the anti-diabetic substance, insulin. One of the instruments which made it possible was the electron microscope, a new machine working on the principle of a television set, which can magnify up to 1,750,000 times.

It brought into focus the "giant" molecules of insulin—tiny particles of organic protein which are themselves made up of other molecules. The insulin molecule was known to be like a minute bracelet of different coloured beads, each bead being a molecule of amino acid. Painstakingly, the beads were split away, two or three at a time, and analysed. Finally, when the electron microscope enabled the molecule to be seen, the complete structure was known: the bracelet consisted of seventeen different kinds of amino acids, some occurring more often than others, with three pendant chains of acid beads attached. It was the culmination of nearly ten years of research.

The tiniest, irreducible particle of every substance on earth can be expressed by a chemical formula. Atoms, grouped together in molecules, multiplied million of times: these make up the human body, an aeroplane, a chair leg—anything.

The chemist's exciting task is to probe ever-deeper into their secrets: to find the precise way in which atoms are arranged in minute fragments, so small that a grain of sugar contains a million million million molecules.

New machines have supplemented the chemical principles of synthesis and analysis. They are fantastic examples of precise measurement. There are weighing machines whose maximum capacity is the amount of ink needed in a full stop. If a fly walked across the pan, the dust left by its footprints would be a perceptible weight.

What chemists are seeking is a complete understanding of the tiny, unknown force which makes the electrons mingle in a different pattern with every compound. Such a theory would give them short cuts to knowledge of nature's secrets, now gained only by laborious deduction. The theory would almost certainly be of great complexity. But electronic computers could be used to apply it to the molecular formation of two compounds and predict in advance exactly what would happen if they were mixed.

Until it is found, chemists will rely on the steadily increasing background of knowledge, which means that they can predict more and more accurately what will happen when they start on a research campaign.

Chemistry's uses extend to almost every field. For doctors, it has produced drugs such as the sulphonamides to treat pneumonia, and insecticides to kill pests. Proprietary brands of medicine are constantly being improved by the addition of tiny quantities of different chemicals.

In industry, half the world's alcohol, an essential solvent, is chemically produced. Synthetic rubber, often with better qualities than the natural product, and only slightly more expensive, is a chemical triumph. Developments in metal alloys need chemical tests and often chemical reactions in their manufacture.

In the home, chemistry has produced detergents, plastic kitchen utensils and silicone polishes. The development of detergents shows how a substance in common industrial use can be adapted for the home.

One day, man may be clothed, fed, warmed and transported almost entirely by chemistry. As the methods of analysis and synthesis improve, nothing, not even the secret of life itself, will be beyond the chemist's understanding.

MICROBIOLOGY

GRADUALLY, the fascinating world of microbes — or germs — is giving up its secrets. Since Louis Pasteur first told mankind more than eighty years ago that disease was caused by these minute living creatures, new ways have been sought to combat them—and to use them.

In spite of their bad name, microbes do far more good than harm. Plant growth would be impossible without them: they take the essential nitrogen fertilizer from the air and fix it in the soil for plants to feed on.

Within their tiny cells—a single microbe may be no more than one-fifty thousandth of an inch—they perform highly complex chemical reactions. The yeast fermentation of sugar, yielding alcohol, has been used by men for centuries. But it is the result of at least nine complicated changes. The anti-rheumatic hormone cortisone was prohibitively expensive to produce until a microscopic fungus was found which would complete the most difficult of fifty stages necessary for its preparation. The fungus introduces a single oxygen atom into the chemical synthesis of cortisone. In one operation this achieves a result which previously had been laboriously attained in seven stages.

Microbes work almost exactly like single cells in the human body. They absorb food, change it, and release a new product. They are extraordinarily versatile. Innumerable different types can be found living in soil and water, or floating about in the air; some corrode miles of underground iron pipes carrying water or gas, others destroy concrete, still more cause tooth decay. Only about one in 30,000 bacteria is capable of causing disease, and even here other bacteria can often be employed to fight it.

New knowledge of the habits of microbes has led to their rapidly expanding uses in industry. About half the world's alcohol, an essential solvent, is produced by yeasts. Lactic acid, the basis of fruit drinks, glycerol for cosmetics, and butadiene for artificial rubber, are all the result of bacteria employed on a large scale.

The development of penicillin illustrates the way in which microbes can be bred to perform new miracles in the field of health. It was not until eleven years after the discovery that some microbes produced penicillin, that penicillin was found to have any major curative powers. Even then, the microbes were slow to grow and gave irregular results. As better techniques were found, the microbes became more efficient. Their success led to the discovery of a whole new range of drugs such as streptomycin, aureomycin and terramycin which have proved potent against a wide range of diseases.

With them, bacteriologists hope to keep one jump ahead in the war against microbal diseases. About ten per cent of disease germs of any given kind will not respond to drugs—they are not all killed by the drugs produced by other microbes. Their descendants become more and more drug-resistant, some of them even feeding off the drugs which once killed their ancestors. They can be fought only by constant experiment to find new microbes to produce new drugs.

Sometime this century, most of the myriad types of microbes will be dissected and classified. Then there will be a drug for every type of bacterial illness; and a range of microbial-produced industrial goods which are not dreamed of today.

SPACE UNIVERSE

IN just over a quarter of a century, Man has added thousands of millions of years to the history of the universe in his search for the goal of the ages—the secret of creation.

The progress of astronomy is one of his greatest triumphs. He probes the heavens although partially blindfolded by the blanket of the Earth's atmosphere. With the most modern giant telescope he is gazing out at space as from the bottom of a swimming bath and even the new wonder of radio astronomy listens in on the universe instead of looking. Yet recent discoveries are prodigious.

Up to the Middle Ages, the Earth was widely believed to be the centre of all creation. Astronomy became a science with the discoveries of the rules of planetary motion by Johannes Kepler, and of the laws of celestial mechanics by Sir Isaac Newton.

By the late seventeenth century, Man had realized that the Earth was a member of the planetary system moving about the sun, which was itself only one of a vast system of stars. But not until early in this century was it discovered that there are 1,000 million stars in our galaxy—some of which we see as the Milky Way. Astronomy has now shown that the Milky Way system is in turn only one of hundreds of millions of similar galaxies, each quite as vast.

The Victorians had been taught from the Bible—following Archbishop Ussher—that the world was six thousand years old. Increasing that figure met with much resistance, but the estimate had risen to 100 million years by the early twentieth century. Present calculations, based on reliable studies of radioactive rocks, prove the Earth itself to be not less than 4,000 million years old.

Man naturally wonders if he has living neighbours somewhere across space. Direct observation of details on the surface of the other planets in our own solar system is impossible. The biggest telescopes could pick out nothing less than fifty miles in diameter even on our closest planetary companion, Venus. At that distance, the sprawling mass of London would

show up only as an insignificant speck whose true nature it would be impossible to decide.

But the slightly more distant Mars has always been rated the most likely member of the solar system to support some kind of life. The idea of an intelligent Martian race flourished after the so-called "canals" were first claimed to have been observed in 1870. Today, almost all astronomers tend to dismiss as an optical illusion what were once thought to be signs of a vast irrigation system covering Mars.

But recent spectacular advances have opened up new possibilities that life may exist beyond this Earth, on planets moving round stars other than our sun. Less than a generation ago, it was believed that planetary systems were exceedingly rare. Our own system was then thought to be a freak, caused when a passing star removed a portion of the sun, either as the broken-away crest of a gravitational tidal wave or through an actual grazing collision. Present theories suggest what would be a more common occurrence—an explosion by a companion star of the sun. Some astronomers now maintain from this that a high proportion of the stars may each have its own retinue of planets.

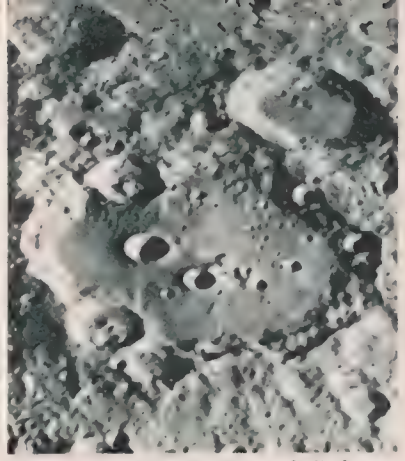
The chances of life similar to ours existing in any of these systems vary because some stars radiate hard X-rays which destroy all living cells, some stars explode from time to time, some are too hot, others are far too cold. But, ruling out these, there are plenty left to be as benevolent to a set of planets as our sun, and so provide here and there conditions suitable for life.

Discoveries at the great high-altitude observatories in America between the two World Wars and the establishing by Slipher, Hubble and Humason of the velocity-distance relation paved the way for a revolutionary explanation of the process of creation. Study of the galaxies outside the Milky Way showed them to be travelling outwards in space. The farther they are from us, the faster their speed.

This pattern of dispersal has led many astronomers to hold that at the beginning of time all matter was concentrated into a much smaller region, forming one gigantic, primitive atom. This was unstable because of its size and was somehow triggered off in the greatest atomic explosion of all time. According to this theory, the galaxies are pieces of debris still flying away from each other.

On the other hand, a group of British astronomers supports the revolutionary proposal that the universe had no beginning—it has always been in being and always will be. They claim that it is far more probable that the thin distribution of matter throughout space remains constant despite the expansion process. They infer from this that new matter, in the form of hydrogen, is always being created in space—in amounts which balance exactly the loss of matter through the outward movement of the galaxies as the universe expands.

Like other explanations of the creation before it, the promise of an eternal universe remains at present only a theory through lack of conclusive proof. But unlike earlier guesses the present theory is capable of proof or eventual disproof. And each new approach serves to stimulate man's quest for knowledge of the heavens. The Earth-bound scientist has gone far towards solving the riddle of the stars. He will be nearer still when his activities reach out into space.



Through the giant 200-inch Palomar telescope man easily charts the moon

Packed with instruments, twelve of these satellites will circle Earth

Space travel means new danger. Even at 400 m.p.h. man can suffer strain

SPACE PROBING

SCIENCE is within a few months of realizing a centuries-old dream: the adventure into outer space. The first man-made Earth satellite will be completed in America next January. Its launching is planned for July, when it should be circling the globe once every ninety minutes at a speed of 18,000 miles an hour and at a distance ranging between three hundred and 1,500 miles above the surface of the Earth. A 150-ton, three-stage rocket will have carried the satellite—itself only a twenty-inch sphere—up to the threshold of the heavens. The operation will represent the most far-reaching actual physical step into the unknown so far accomplished by man's ingenuity.

The uncertain region between our atmosphere and outer space—exactly how many hundreds of miles above the Earth's surface is not yet known—will be the latest frontier to be stormed by man. The satellite will give him an observation post in this no-man's land. It will radio back to the Outer Space Control set up in Arizona an on-the-spot account of the bombardment to which the advancing space traveller will be subject. It will register the impact on the satellite of meteors, cosmic rays and the sun's ultra-violet light and particle emissions, beyond the full protective layer of the Earth's atmosphere.

The same atmosphere will eventually scorch the artificial moon into oblivion within a matter of days—or, at the most, a few weeks—after its initial launching. The slight drag caused by the outer fringes of the atmosphere will gradually reduce the satellite's orbit until it is drawn back into denser but still very rarefied air, miles above our heads. And there it will be consumed by friction, owing to its great speed through the air of nearly 20,000 m.p.h.

By then, however, the tiny missile will have served its purpose. The first of many successors will be taking its place. These preliminary probes by artificial moons will be part of a £30-million effort by forty countries during the International Geophysical Year, 1957-58. An active part in space research is being played by Russian scientists. Already, they have sent live animals 310 miles from the Earth in rockets with air-pressurized cabins. To date, man himself has been able to rise a mere seventeen miles or so above ground level. He has a long road ahead of him. But he knows the way.

Maps exist to lead him through the solar system, across the Milky Way, and out to the remotest galaxies. The Atlas of the Universe recently completed at the Mount Palomar Observatory, in Southern California, charts objects in space whose light has taken 300 million years to reach the Earth. With Palomar's giant 200-inch telescope, man can photograph, and thereby see, clusters of galaxies at all distances out to about two thousand million light-years—and each light-year represents a distance of six million million miles.

Even this fantastic range of optical astronomy does not reach the limits of space. But the latest developments in radio astronomy increase the range. Handicapped in conventional observations by its climate, Britain has pioneered the radio telescope. Instead of an ordinary mirror, a far larger aerial system is used to focus the strange "radio noises" from outer space so that they can be amplified and then recorded for interpretation.

One of Britain's fixed radio-telescopes, 220 feet in diameter, has detected energy coming from the Andromeda nebula, the nearest external galaxy, now known to be nearly two million light-years away. Considerable radio-energy was also found to be emitted by a mysterious diffuse cloud of luminous gas, already well known as the Crab nebula within our own Milky Way, and believed to be the remnants of an exploding star observed and carefully recorded by the Chinese in A.D. 1054.

The giant movable radio-telescope nearing completion at Jodrell Bank is expected to reveal the existence of hundreds of millions of nebulae beyond the reach of ordinary optical instruments, however large. Within our own galaxy it will also pierce the interstellar dust clouds which obscure so much of its central parts.

With its 2,000-ton aerial structure, in the shape of a bowl nearly three times the width of the dome of St. Paul's Cathedral, the £600,000 monster at Jodrell Bank has been described as the "greatest feat in the art of experiment." It should be in operation when the satellites are launched next summer.

Man's probes into space will then have reached a new peak. But even more dramatic progress is certain in the immediate future. More and more powerful techniques—visual and radio—are being planned. The satellite programme is likely to be followed by a one-way journey to the moon itself by an unmanned projectile—a journey needing only two-fifths more power than the rocket which will launch the artificial moons. Next, a similar space vehicle no larger than these satellites would circle the moon under remote control, photographing its surface at close range and returning to Earth.

Astronomers will then get their first peep at a hitherto uncharted region of the heavens when they see what lies on the "other side" of the moon. These achievements will pave the way for a greater marvel still—a successful human journey into space.

SPACE TRAVEL

THE first explorer of space may already have been born. He is destined to lead the way at one of the greatest turning points in human history. Interplanetary travel will end man's physical isolation from the rest of the universe. At the moment, however, he is a planet-bound explorer knowing where he wants to go, but without possessing a ship able to perform and survive the journey.

He knows that only some form of rocket craft can propel him through the heavens. A rocket is a pure reaction device carrying its own fuel and oxidizer, and is the one known method of propulsion which will operate in empty space. It is also the simplest, and potentially the most efficient, of all heat engines. If rocket motors are built sufficiently large, there is no limit to the power which might be achieved—even the V2 developed 600,000 horsepower, and this was no more than a pioneering effort.

Present known liquid fuels, however, cannot be made to produce the thrust required for even the shortest interplanetary journey. On a return trip to the moon, including landings, at least half a ton of conventional fuel would be required for each pound weight of the crew and their rocket, which would have to be the size of a destroyer. Yet even the few pounds of nuclear matter exploded at Bikini released enough energy to take a thousand-ton payload to the moon and back.

Scientists look to atomic power for the means to break free of the Earth's gravitational field. For long-range trips through space, methane or marsh gas is being tested for use as a propellant in conjunction with a nuclear reactor. These experiments, and the recent discovery that Titan (largest of Saturn's moons) has an atmosphere of methane, suggest the promise of a natural filling station on the celestial highway—when the several years' journey to Saturn becomes possible.

First, however, man will have built his own base camp just over a thousand miles from home. The logical successor to next year's electronic satellites is an artificial moon large enough to accommodate man himself.

A rotating wheel-shaped structure, 250 feet in diameter, will house a crew of eighty in pressurized compartments inside the rim. Prefabricated parts will be rocketed up into the selected orbit and left circling the Earth in space, forming a builder's yard spread out round the projected path of the space station. With all the materials at hand, space mechanics and remote-controlled equipment will undertake the assembly. Man may make his first appearance in outer space by leaving his rocket ship to work. Operating in a bulky space suit—or even a hard protective shell may be necessary—he will experience conditions at least as difficult as those which might be met by divers trying to build a submarine on the sea bottom.

A space station would cost over £1,000 million to build, but would open up immense possibilities in the exploration of the universe. Its successful completion will mean that man can survive outside the Earth's atmosphere. Once established in their extra-terrestrial home, its crew could assemble the long-distance rocket ship able to reach the moon in a day or so and Mars in three or four months, travelling at three miles a second.

The rocket will have its own supply of air—perhaps sustained by plants. The atmosphere within the ship will be pressurized to the density at ground level. The impact of meteors will be cushioned by a "space-bumper"—a thin protective outer skin placed on studs outside the main wall of the rocket with a small gap between.

A space vehicle can produce its own gravity by revolving on its axis. Experts know that special protection will be needed against solar radiation, and perhaps also against cosmic rays. These latter are as yet an unknown quantity; experts expect to find the answer in lessons learned from the impending Earth satellites project.

But the crew of a lunar rocket will be merely the Wright brothers of real space travel. A far more advanced type of craft will be needed to explore the more distant parts of the universe. Some stars are so distant, and the journey would take so long, that only the remote descendants of the original passengers could reach the destination. A hand-picked complement of men and women in a giant Space Noah's Ark would be needed. It would have to have its own farm to support the succeeding generations, and a self-contained university to maintain the culture of the occupants on the fantastic journey.

Marian stood barring his way. "We're all going to fight him," she said, "except you. . . . You—you coward!"

with you and put the launch over the side," he said.

"My drink," Freddy reminded him.

"It will have to wait."

"You promised me," Freddy protested piteously.

Herriot sneered at him. "Alcohol is a hard master, Mr. Farr," he said. "You should be grateful that I am helping you to resist it. Go below."

Freddy stumbled miserably towards the companionway. Blake was left on deck to assist in lowering, under Herriot's intent gaze, the yacht's launch into the water. Roche, with Herriot's other man, Jules, dropped into it and cast off for the shore.

An interminable period of waiting followed before Jules returned alone. Roche was now on his way to Switzerland. The first part of Herriot's plan was smoothly under way. . . .

The crew of the Angel did not leave the Bureau de la Sûreté Publique as they had entered the building, in a group. The steward, César, burst through the door first, running hard for the harbour.

The others, with old Michaud the engineer stubbornly refusing to be hurried, caught up with him on the Quai du Commerce, where he stood cursing steadily at the sight of the Angel heading seawards. Together they watched the yacht veer unexpectedly towards the south jetty, hang for moments on the edge of catastrophe, then clear the danger and slip out to see.

"We have been abandoned, by God!" Michaud said darkly. "I would not have believed it of the captain. Money corrupts all that it touches."

César's reply was hot. "Are you so simple that you can't see we were tricked ashore by those gangsters, so that they could seize the yacht while we were out of the way?"

"You read too many detective stories," Michaud said.

"You saw what happened at the harbour mouth?" César retorted. "It was almost a wreck. How do you explain that if the captain is still in command? These gangsters tricked us."

"Gangsters!" spluttered Michaud. "What gangsters?"

"The men who were on the jetty. The men who invented the story about the *permis*. Do you see them there now, or anywhere? I tell you they've taken the yacht. We must tell the police at once."

César stopped and looked round anxiously at the rest of the crew. Then he turned, and made

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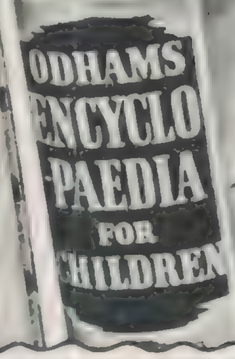

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a dash for the Sûreté Publique again. He was out of breath by the time he had run all the way back there.

His air of urgency won him a quick audience with the Bureau *sous-chef*, who was a conscientious public servant with bags under his eyes. His name was Neyrolle. He smoked Gauloises incessantly, and made quick notes on a pad of yellow paper while he heard César out.

"How do you know that the yacht was in fact seized?" he asked firmly.

César had a dismayed feeling that time was running out, for him and the Angel alike. He said pleadingly: "Your Honour, there are certain to be eye-witnesses—if you must have eye-witnesses. I did not myself look for them. The Angel is still only ten minutes out of the port. Send a boat after her, put a squad of police aboard, seize these gangsters before they can do harm. Eye-witnesses can come later."

"You have used the word 'gangsters' several times, monsieur," Neyrolle said sharply. "Unfortunately you have given me nothing on which to take action. Monsieur Farr's yacht seems to have left port with little regard for its crew, I grant you, but his failure to settle accounts with his employees is not the kind of misdemeanour for which I should be inclined to pursue the Angel with a boatload of police. Unless you can give me some concrete evidence of the commission of a crime, I am helpless."

"But the phony *permis*!" César cried. "The trick to get us out of the way."

"It is something to be looked into, certainly." Neyrolle pushed a button. "I am a busy man. If there has been a crime committed, my staff will learn of it and take proper steps, I assure you. You will help most by dictating an account of what you have told me to the clerk outside and leaving me an address where you can be reached. Thank you for your co-operation."

A FEW minutes later César was walking moodily back towards what had been the Angel's mooring. His hands were in his pockets, his shoulders hunched. Neyrolle, at the same moment, was giving orders to one of his *agents*.

"Go down to the port and see if you can find anyone who noticed anything unusual about the departure of a motor cruiser from the south jetty within the last hour," he said. "The Angel. American. I don't expect you to discover anything out of the way, but go on the assumption that you will. . . ."

George Samson—the British reporter who had passed the previous night at the casino with Freddy Farr and his friends—had not spent a great deal of time in Monaco, and for that reason knew Neyrolle only casually. They did not particularly like each other. But George knew the importance of a source of information at police headquarters, and Neyrolle recognized the power of the press. They got along, after a fashion.

It was unusual for Neyrolle to telephone George's hotel and ask him to call at the Sûreté Publique. George, who had slept most of the day after his night out, went to the appointment with some curiosity.

He found the *sous-chef* frowning over a copy of a complaint by Michaud, the Angel's engineer, to the Commandant du Port, that Monsieur Farr's captain had abandoned his crew. A copy of César's conflicting interpretation of the same happening lay on his desk.

Neyrolle handed George the two papers. He said: "Read these, then tell me which one you, as a journalist, would consider nearer the truth."

George took the statements, his interest sharpening as he read. When he had finished, he said: "The steward's story is nonsense, of course. He's seen too many American films."

"Quite possibly." Neyrolle took back the papers. "Now I should like to ask you some questions."

George stiffened. "What kind of questions?"

"I have a report that a man answering your description was observed at the port this morning in a *fiacre* with Monsieur Farr and his guests, shortly before the Angel sailed. And we always know what is going on at the casino. You have passed the last several nights there in Monsieur Farr's company, although you do not yourself gamble. Why is that?"

"I don't gamble because I don't like to gamble. As for spending time with Freddy, I have to. I'm writing an article about him."

"For whom?"

"No one in particular. Anybody who will buy it."

"And that is your only interest in Monsieur Farr?"

"Stop beating around the bush," George said, bristling. "What are you getting at?"

Neyrolle answered carefully: "Most people who show an interest in Monsieur Farr are after his money."

"I've told you the reason for my interest."

"So you have. So you have." The *sous-chef* nodded agreeably. "Perhaps you can tell me something more. In your research into Monsieur Farr's affairs, did you learn anything that might throw light on the abrupt manner of the Angel's departure?"

"I'm as confused by it as you are," George said shortly. "I was talking to his captain after Freddy and his guests went aboard this morning. He had the crew standing by to cast off. I got the impression that the yacht was ready to leave at once, with everything in order."

Neyrolle nodded. "That is the one feature which leads me to put some small credence in the steward's story. The crew was in fact tricked ashore when the yacht was on the very verge of sailing. A seizure and immediate flight would have been impossible otherwise."

"It needn't have been a trick. A simple mistake, perhaps—a waterfront rumour."

"No, no, my friend!" Neyrolle said quickly. "That I will not accept. The crew was sent ashore for false *permis*, the yacht was headed out to sea a few minutes afterwards, and the men who were on the jetty when the crew left it were not there when they returned. I believe, with the steward, that those men took the crew's place. Whether they were invited aboard to work or forced their way on to the yacht is something we have yet to learn, but I decline to believe it was merely coincidence that they also persuaded the captain of the need for fake *permis*."

"You see connections where they don't exist," George said flatly. "Have you tried getting in touch with the yacht by radio-telephone?"

"Not yet. We have no direct ship-to-shore communication in Monaco. It is possible to send a message through Radio Grasse, but if the Angel does not happen to have her ears open. . . ." Neyrolle shrugged eloquently. "Well, I shall try it all the same." He looked at George and added abruptly: "How much will you be paid for your article on Monsieur Farr, if you sell it?"

GEORGE was silent for a long moment, his mouth tight. He said finally, grudgingly: "Three or four hundred pounds, perhaps."

"How long have you been working at it?"

"Off and on, for about six weeks."

"All to earn a possible three hundred pounds?"

"I began reading back copies of the *New York Herald Tribune* six weeks ago, in Paris, for material on Freddy Farr. He hasn't occupied all my time since. I came to Monte Carlo only last week, to talk to him personally."

"I am aware of the length of your stay in the principality," Neyrolle said. "That is all, then. Thank you for coming."

George left without the customary exchange of courtesies, his mouth still tight.

When he had gone, Neyrolle called a clerk. "Prepare a *dossier* on Monsieur Samson," he said. "The usual material, with particular reference to his connections with Monsieur Farr."

The clerk made a note, then turned to leave. Neyrolle added thoughtfully: "And see if Paris can give you any information on him. I wonder that a man who resists even roulette can gamble so strongly on an uncertain return for so much of his time and labour. . . ."

"There is your course," Jules said, "until I

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IN JOHN BULL NEXT WEEK

give you another. One hundred and ninety degrees magnetic. Hold it at ten knots, and do not leave the wheel until you are relieved."

"When will that be?" Blake asked.

"When I decide. Do not ask so many questions."

They were six hours out of Monaco, pushing steadily southwards through the early dark.

Jules had made a bundle of all the signalling devices in the wheelhouse: rockets, smoke candles, the Very pistol, flags, everything that could be used for sending a message. Having put the radio-telephone out of commission and destroyed the bridge telephone contact, he had blinded the searchlight on the roof of the wheelhouse by ripping out a section of the wires that fed it power.

Now he picked up his bundle, and tucked it under one arm. The door closed behind him.

Left alone, Blake had time to think about the temper of the Angel's passengers. He hoped that Herriot would keep them locked up indefinitely. They wouldn't starve in seventy-two hours.

There were, in fact, only sixty-five hours to go now. He had already begun to mark time by the hours that had to elapse before the rendezvous with Roche. He closed his mind to everything but the need to get through that period without further trouble.

The number of hours to wait was down to sixty-two when he picked up the lights of a steamer, bound, by its course, for Ajaccio. Watching it while he calculated the Angel's approximate position in his head, he let the cruiser swing a point or two off course, and was prepared, when he heard someone on the ladder outside, for Jules's return with a warning, or punishment; or both.

He was surprised when the door opened and Marian Ellis's subdued voice spoke in the dark. "Could you turn on a light, please?" she said. "I've brought you some dinner."

HE switched on the overhead light. She carried a galley stewpot and a long loaf of French bread.

"That looks good," he told her. "Did Herriot let you out to take charge of the galley?"

"He let us all out, an hour ago. I took over the galley because it gave me something to do besides sit and think about how gullible I am."

"What else has happened?"

"Nothing in particular. Your Mr. Farr was pretty . . . graphic . . . about what he thought of me, when he had a chance to express himself."

The constraint in her voice told Blake how savage Freddy must have been.

He said: "Don't let Freddy get you down," then changed the subject by inviting her to take the wheel while he ate. "Keep the compass as nearly on one hundred and ninety as you can," he said.

He explored the contents of the stewpot while he waited for her to talk. He discovered that he was very hungry, and remembered that he had not eaten since breakfast.

While he was making up for the lack of lunch, Marian said unexpectedly: "Are you going to go on doing just what they tell you to do, for as long as they tell you?"

"Unless I see a chance to do something else with safety, yes."

"I liked you better when you tried to wreck us."

"I've learned to be afraid of them since then," Blake said curtly. "Herriot is a killer. They're taking a big risk for a sum of money that means nothing to Freddy. I'm willing to let them get away with it if that will avoid bloodshed."

"You're the only one who will help them, then." She was standing very straight at the wheel and he saw the stubborn set of her chin. "Freddy is fighting them. So is Bruno di Lucca."

"In what way are they fighting?"

"They're going to break into the bar."

As an anticlimax, it was stunning. Blake could think of nothing to say before Marian went on coolly: "They're going to put messages for help in the bottles and throw them overboard. And

"Coat rack!"

if it is only a gesture, I admire them for it."

"It's a gesture that can bring them more harm than help," Blake said. "Tell Freddy from me he's to leave the bar alone."

He had finished his meal. When he went to take the wheel again, Marian turned suddenly to face him, her back against the spokes, her arms wide, barring him.

"Wait!" she said. "Isn't there anything that can make you oppose Herriot?"

It was a plea. He said patiently: "Why do you want to oppose him? To save Freddy's money?"

"He tricked me." Her eyes were angry, too bright. "He threatened to kill me, and laughed at me for a fool. I'm not going to forget that."

"He'll do worse than laugh at you if you try to fight him. Let me have the wheel."

Fiercely, she said: "We're all going to fight him, except you. Bruno said you wouldn't help, but I didn't believe him. I do now. . . . You—you coward!"

Grimly, Blake ignored the taunt. He said: "Tell Bruno I've given orders to keep away from the bar."

"I will not. I'll help him break it open. I'll write messages for him. I'll

MONEY—I

The love of money is the root of all evil.

New Testament

throw the bottles into the sea." She backed towards the door.

"Don't be a fool. Herriot will kill you——"

But she had gone. He took a quick step to follow her, and was checked by the sight of the unmanned, idly rocking wheel. Slowly, unwillingly, he turned back to the charge that held him in bondage to the Angel.

Jules relieved the wheel at midnight, yawning like a man who has just been wakened. "Get some sleep while you can, Captain," he said. "And if you want to do any oiling before morning, now is your chance. But remember—Herriot will be watching."

The chill implication of the warning remained with Blake as he went down the ladder. He did not see Herriot on deck, but he had a strong feeling of being under observation.

When he had finished in the engine-room, he went aft. Freddy was pacing the small length of the saloon, unable to sit still. Valentina sat at the radio exploring the short wave stations for news broadcasts. Bruno watched her with a sullen concentration of interest as obvious as her indifference to it, and Laura di Lucca in turn watched Bruno with an expression of naked jealousy that was painful to see. Marian was not there.

Blake stopped in the doorway of the saloon, where he could see the outside deck. There were a number of vantage points from which Herriot might be eavesdropping, but he could not guard against all contingencies.

He said bluntly: "I think it's about time we had a meeting of minds."

Freddy stopped his pacing. The others looked up.

"There's been talk of breaking into the bar," Blake went on. "If you haven't already been told how I feel about the idea, I'm against it. I think we had all better agree here and now that none of us will take any action without the approval of the others."

"Jim!" Freddy said, in a voice of warning and disbelief.

Bruno said contemptuously: "Don't hesitate to advertise our plans, Captain."

"I'm trying to save your neck," Blake told him bluntly. "And yours, Freddy. You've already gone against Herriot's orders once. You know what to expect."

"But he said I could have a drink," Freddy said. "You heard him. Do you know what it's like to be dying on your feet? I've got to have a drink. I'll shake to pieces if I don't."

"You'll just have to shake then," Blake said. "Herriot has the key to the bar. He's running things, whether we like it or not."

Quite unexpectedly, Valentina spoke. "I agree with you, Captain," she said. "It would be very foolish to do anything the little man wishes us not to do." She snapped the switch of the radio off, turning her attention and her honey-coloured eyes to Bruno. "Perhaps you will listen to me. Do not take the risk."

Laura di Lucca stiffened perceptibly. Freddy groaned: "Valentina!"

"Nor you, Freddy!" Valentina said. "It is too dangerous. I will bring you some medicine to make you feel better, and there will be no more talk of breaking locks."

She rose serenely from her chair, a queen dismissing her court, and disappeared down the companionway to the cabins below. No one spoke again.

Afterwards, Blake cooled his temper at the cruiser's rail, with the salt spray from Angel's bow wave whipping up out of blackness to wet his face and hair. He was grateful for Valentina's help, resentful that he had needed it, and bitter that he had been so stupid as to give orders he could not enforce.

He was aware that the door of the saloon had opened briefly and then closed again. Valentina stood beside him. There was enough illumination to show the unlit cigarette between her lips.

"May I trouble you?" she said quietly.

He managed to keep a match flaming in his cupped hands long enough to give her a light. She thanked him in her husky voice, then rested her forearms on the rail beside his own and smoked silently.

"I owe you thanks for your help just now," Blake said.

"It was nothing." The cigarette glowed and glowed again. "I could give you even more help, if you would like me to."

"In what way?"

"With Bruno."

"Are you and he—friends?"

"Not as you mean it. But I have known other Brunos, many of them. He can be made to do what I wish him to do."

"His wife is already jealous of you."

"So?" Valentina laughed scornfully. "Marrying a gigolo does not make him any less a gigolo. She should have done with her illusions before now. I would be keeping her Bruno out of the trouble he will get into if he is not controlled. Shall I concentrate his interest on me to the exclusion of other things?"

"It would help."

"Bruno is not the only one who needs controlling," Valentina added. "There is also the little English girl. What did you do to make her angry with you?"

"She thinks I'm a coward."

"So! With her I can be of no help. You will have to control her yourself."

"That's the trouble. I don't know how to."

"Are you so inexperienced with women then, Captain?"

There was frank speculation in Valentina's husky voice. Blake was aware that she stood very close, waiting.

He said: "I'm afraid I am. Bruno would call me timid. Will you excuse me?"

"Of course. Good night." Her poise was undisturbed when he walked away. If anything, she seemed amused.

BLAKE turned in. He awoke hours later with a start and felt a thrill of irrational fear at the sight of Herriot's small figure in the cabin doorway.

"Time to resume your command, Captain," Herriot said. "Four o'clock. Jules is waiting for you."

Blake dressed and followed Herriot to the wheelhouse. Jules had charted the Angel's position at midnight. The compass bearing had not changed. The yacht was west and south of Ajaccio, in the open sea.

Jules handed over the wheel and left. Herriot stayed on to watch while Blake made his calculations and made up the log. Blake said: "Is there any reason why I shouldn't know where we're bound?"

"We are not bound anywhere," Herriot answered readily. "We're just passing the time."

"We could pass time just as easily by shutting down and drifting. We're out of the steamer lanes."

"That would give you too much leisure in which to think," Herriot said. "While you are kept at the wheel, you are safe from making mischief, Captain." He paused. "I wish I could keep your passengers similarly occupied. I have heard them talking. What is it the Italian means to do when the bar is opened?"

Blake hesitated only briefly. The truth was less dangerous to Bruno than Herriot's imaginings. He said: "He was going to put messages in bottles and throw them overboard."

Herriot laughed his fox-bark laugh. "The gigolo mind at work," he said. "Anything to impress the ladies, however ineffectual. He is clever in a very obvious way. He has acquired a rich wife. But you quiet ones are more clever, Captain. How would you like to work for me?"

The morning light had strengthened, showing the brooding, intent look on Herriot's face as he waited for the reply.

Blake said cautiously: "I am working for you. That gun compels me to."

"I mean voluntarily. By coming over to my side. As for the gun, it is still a necessary persuader. I do not expect that we can come to terms in a moment. But we *can* come to terms, Captain. Think over what I have offered you."

Herriot left Blake with the certain conviction that what he had been offered was an opportunity to help extort further money from Freddy. Herriot could not hold Freddy captive indefinitely, or send Roche to the United States for ransom as easily as

he had sent him to Geneva. But Blake's help, his established position in Freddy's confidence, might very well be just what Herriot needed, or thought he needed, to get at Freddy's main banking account in America. Perhaps, after all, Freddy's cheque for 100,000 dollars was not going to be enough to buy Herriot off.

For the first time since his attempt to wreck the yacht, Blake began to question the wisdom of submitting without resistance to Herriot's authority. . . .

The sun rose over a clear and empty sea. The Angel fled southward without so much as a smudge of smoke on the horizon to keep her company. Even if they were to sight another ship, Blake thought, he had no control over searchlight or signalling apparatus; the radio-telephone did not function, and they had no rockets, no flares.

His thoughts went back a step. The radio-telephone *did* function. Jules had taken only the handset, preventing any possibility of two-way communication but without crippling the speaker. The Angel could receive messages even if she could not send them.

In all probability some inquiry would be made in Monaco about a yacht that inexplicably abandoned its crew. Questions might even be beamed at the Angel over Radio Grasse, which handled all the ship-to-shore traffic in that part of the Mediterranean.

It was seven o'clock in the morning when Blake switched on the radio-telephone and tried to find a news broadcast. But to explore the short-wave channels he had to leave the wheel unattended, and the stiff morning breeze had put up a sea that pushed the Angel's bearing off as fast as he corrected it.

He was listening to a spate of rapid Italian from a Sardinian station when Jules thrust open the door of the wheelhouse to scowl at him. "You're leaving a wake like a crooked stick," Jules said. "What are you doing? What have you got that thing on for?"

"Weather forecast. In ten minutes."

"Get away from it." Jules followed the order, when Blake did not immediately obey, by reaching for the fat cable that was the radio-telephone's power artery. At his sharp tug there was a single, crackling flash, an acrid odour of burned insulation, and silence. To make certain that the radio-telephone remained dead, the big sailor took a knife from his pocket and sawed the cable off at the point where it entered the cabinet.

"I'll give you all the weather forecasts you need," he growled. "You stick to doing what you're told to do, Captain. . . ."

NEYROLLE said: "I have asked Radio Grasse to request communication with the yacht. The message went out with the morning weather forecast and will go out regularly at two-hour intervals. There is no compulsion on the Angel to be listening for a call and, from what we know of Monsieur Farr's attitude to authority, it is possible that he will not choose to respond even if the message reaches him. I can only hope that he wishes to."

"And is able to," George Samson said.

"There is that to consider," Neyrolle agreed. He looked tired and worried. "*Peste*, if only we really knew something!"

"Made any interesting discoveries?"

"Unfortunately, no."

"Why don't you put the international police on it? Or the Nato navies? Warships are spread all over the Mediterranean. They could find the Angel in a matter of hours."

"I shall not hesitate to ask for help from all these sources when I am reasonably sure that help is needed."

The rebuke was plain. George flushed. Before he could fire back, the *sous-chef* went on: "At the moment, I need a different kind of assistance."

"What kind is that?"

Neyrolle shook a Gauloise out of a crumpled packet on his desk, offered one to George, and lit his own when the reporter declined.

"Someone to talk further with the steward," he said. "I suspect that more facts can be had from him by proper questioning."

"What you mean is that you need my help," George said. "Coming down off your high horse a bit, aren't you?"

George made no attempt to keep the triumph out of his voice. Neyrolle spread his hands in a Gallic gesture of helplessness, and did not let the other man see his eyes.

"I'll strike a bargain with you, then," George said. "You keep me posted on what you know, I'll bring you whatever I can find out, and I get the story, whatever it may be, exclusively."

Neyrolle frowned. "I concede that your help could be of value to me," he said. "But I can hardly be expected to pledge that I will say nothing at all to any other reporter if I am questioned. I will guarantee you preferential rights, but not an exclusive story."

George shook his head stubbornly. "That's not enough. If I'm going to work for you. I've got to have an assurance that it will pay dividends. My time is all I've got to sell."

Neyrolle hesitated, then shrugged. "Very well. I am in no position to bargain." He was, if George had known him better, altogether too humble. "The steward"—the *sous-chef* went through the papers on his desk until he found the address he was looking for—"is at La Rascasse. It is a small bar and café at the foot of the Quai du Commerce." He got up to show that the interview was over. "Please do not waste any time. You understand my position."

"Better than you think," George said.

Neyrolle smoked thoughtfully for some minutes after the reporter had left his office. He had satisfied himself that George was not a gambler, in any sense. His interest could not be won with the probability of an exclusive story, but only by the guarantee of it. It made the riddle of the article on Freddy Farr, written for a doubtful return, more than ever puzzling.

He called his clerk and made inquiries about the *dossier* on George Samson. The clerk reported nothing new. Inquiries, he said, were still in progress.

George was lucky at La Rascasse. A waiter pointed César out, alone on the terrace. The steward had a *pastis* in front of him. George identified himself, ordered a coffee and another *pastis*, and mentioned the Sûreté Publique. No more was necessary. César was ripe for an attentive and not too sceptical audience.

"Tell me what happened yesterday morning, César," George said. "From the beginning."

George was a good listener. He closed his eyes and let César ramble. It was when the steward casually mentioned discovering a handbag in the yacht early in the morning before the crew left the ship that George interrupted him.

"Wait a minute," he said. "You say a girl left this handbag the previous night, and Blake had been entertaining her on the yacht?"

César assured him that that was so. He added: "She could not have been Monsieur Farr's guest for, as you know, he was at the casino all night."

"Was Blake—did he often have women aboard?"

"Never that I know of. The girls were always Freddy's girls. Of course it's hard to tell what the captain does when he is ashore, but he doesn't spend much time ashore. The Angel is his girl."

George began to feel a thrill of discovery. He questioned César at length without learning more about the mysterious midnight visitor, but he had enough to take to Neyrolle. The rest was up to the *sous-chef's* organization, which, as George knew, was highly efficient at routine investigations.

All they needed, he thought, as he hurried back to the Sûreté Publique, was the kind of lead a good reporter could give them. He jeered inwardly at Neyrolle's predicament. . . .

Blake was alone in the wheelhouse, Jules having just left him, when Freddy appeared on the foredeck. He wore a jaunty yachting cap, carried a suspicious bulge in his arm sling, and dragged a deckchair after him. His relaxed, almost cheerful, manner showed that he had unearthed some liquor from somewhere.

He's probably found a half-finished bottle in his cabin cupboard, Blake thought wryly.

He watched Freddy set up the chair on the open deck, plump himself down in it, take a long drink from the bottle that was in his sling, then tip the yachting cap over his eyes for the delayed nap he was about to enjoy. He was asleep in a matter of seconds.

LESS than an hour later, Bruno, in swimming trunks, came out on the foredeck. For some moments he stood looking at the wheelhouse, his hand shading his eyes. Afterwards he went away, to return with an armload of pneumatic mattresses which he inflated and spread around the foredeck. There he was joined by Valentina and Laura di Lucca.

Valentina had taken simple and effective steps to live up to her promise to concentrate Bruno's interest on herself. Under a robe which she discarded in the hot sun beating down on the foredeck, she wore a bikini that did nothing to disguise the lush ripeness of her figure. Her skin was a warm, golden brown.

A voice behind Blake said: "The gigolo finds the other woman more desirable than his wife. Sad, is it not, Captain?"

Herriot stood in the open doorway of the wheelhouse, his lip curled in pleasure at having taken Blake by surprise. He added: "It may interest you to know that Grasse is calling the Angel every two hours—I picked the call up on the radio in the saloon. But they will soon tire of trying to contact an eccentric millionaire who has chosen to leave his crew stranded."

He glanced again at the foredeck. "Observe how amorous the gigolo becomes. His wife is about to burst with jealousy."

On the foredeck, Bruno's intimate conversation with Valentina had progressed to a point where he was showing her something written on a piece of paper, letting her see the writing without giving her the paper to hold. That she immediately wanted the paper itself was apparent from the pantomime that followed. Bruno stood up, fending Valentina away from it while he rolled it into a spill. Then he dodged away from her to pull the hidden bottle from Freddy's arm sling.

The disturbance woke Freddy in time to see the last of the liquor he had been protecting gurgling away in the scuppers. Bruno's intentions were clear even before he again dodged Valentina. He stuffed the message into the bottle, and waved his triumph defiantly at the wheelhouse. Then he pitched the bottle into the sea.

Blake knew that the taunting gesture was for him and not for Herriot. But Herriot made an unpleasant sound in his throat as he reached for the pistol in his belt.

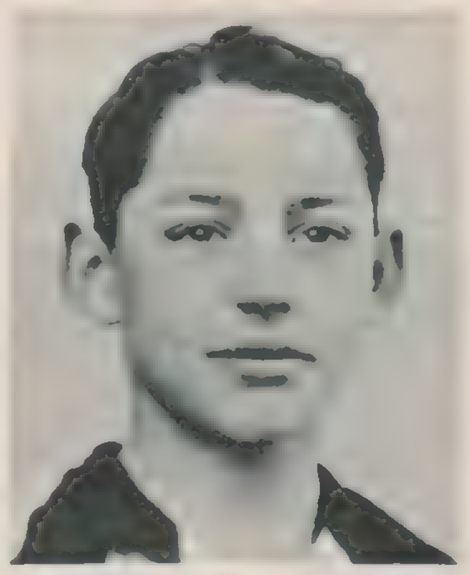
"He's only showing off," Blake said quickly. "There isn't a chance in a million it will be picked up. Forget it."

"I don't like gigolos who show off." Herriot's face was ugly. "Stop your engines. He needs a taste of discipline."

"Let it go. I'll handle. . . ."

The lifted automatic interrupted

MY BROTHER John



As a young boy, John was sturdy, dark-haired and tough. He took to water like a duck and was always in and out of the sea when we were at Hayling Island in Hampshire, where we usually spent the summer.

He was an unusual, rather imaginative boy, not only in the amateur theatricals which we played among ourselves and with our three cousins, but whenever we were out and about together. He also used to invent stories about people and scenes. I can remember particularly a trick of his: it was to listen to the humming of the telephone wires. He would get his ear as close to them as he could and then repeat the conversations which he claimed to hear passing along the wires.

When John was about ten, we decided to build a boat. We worked extremely hard and tried building it to our own design. At last we thought it was ready and hauled it down to the sea to see if it would float. As John was the younger, he was always given the job of trying out our doubtful experiments, and he gingerly stepped into the boat and pushed out to sea. The boat sank.

When I stopped laughing for a moment I suddenly realized that John was drowning, having choked with his own laughter and swallowed more water than was good for him. I had to dive in quickly and fish him out. We never built another boat.

At school, John played cricket with Douglas Jardine and shared illnesses with Hugh Gaitskell.

When John caught German measles he was promptly put in the sanatorium next to young Gaitskell, who was suffering from the same complaint. He in turn developed mumps, which he passed on to John. Now John is fond of saying that he is the only person ever to get something for nothing from a Chancellor of the Exchequer.

John loved animals and kept two white rats, Ricky and Ticky. He was always talking to his rats—and for that matter, he was always talking to most people and things. I remember that on one occasion a friend who was supposed to be psychic visited us: she looked at John, and I can still remember her telling our mother: "One day he'll talk to millions."

Of course, our mother thought that could mean only one thing—that he would become a politician. But she was wrong.

WHO IS THIS FAMOUS BROTHER? See page 42

Win Friends, Popularity With Little Tricks of Everyday Talk

A well-known publisher reports there is a simple technique of everyday conversation which can pay you real dividends in both social and professional advancement and works like magic to give you added poise, self-confidence and greater popularity. The details of this method are described in a fascinating booklet, "Adventures in Conversation," sent free on request.

According to this publisher, many people do not realise how much they could influence others simply by what they say and how they say it. Whether in business, at social functions, or even in casual conversations with new acquaintances, there are ways in which you can make a good impression every time you talk.

To acquaint more readers of this magazine with the easy-to-follow rules for developing skill in everyday conversation, the publishers have printed full details of their interesting self-training method in a 24-page booklet, which will be sent free to anyone who requests it. The address is Conversation Studies (Dept. J.B./C.S.1), Marple, Cheshire. Enclose 2½d. stamp for postage.

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him. Herriot said: "I gave you an order, Captain. Stop your engines."

Blake reached to close the throttles. As the purr of the diesels died and the Angel lost way, Herriot went down the ladder to the foredeck.

Bruno, watching him come, showed no fear. There was almost an air of expectation in the way he waited for Herriot's approach.

Herriot stopped three yards away, the pistol levelled. Blake did not hear the question that was asked. But he had abandoned the now drifting Angel to her own helm and moved closer, in time to hear Bruno's reply: "A letter to my tailor. Why?"

Bruno was magnificent in the cool contempt of his manner towards the little man. Valentina and Laura di Lucca had drawn slightly away; Freddy still blinked in his deckchair by the rail, craning his neck to see round the two women.

Herriot said: "Jump over the side and bring it back. I want to read it."

"I don't permit anyone to read my mail."

Laura di Lucca said tremulously: "Do—do as he says, *caro*. It's only a little swim. I'll go in with you."

"Mind your own business," Bruno said.

ONLY then did Blake see his intention to try for the pistol. The realization came so tardily before the attempt that he had no time even to shout a warning against it. Bruno turned as if to obey Herriot's order, then threw himself aside and down in a flashing wrestler's lunge that brought his outstretched foot sweeping like a flail at Herriot's ankles.

The flail missed. Herriot shot three times, so rapidly that the third of the cartridge cases ejected by the automatic was glinting brassily in mid-air when the first fell to the deck.

In the stunning silence that followed the roar of the last shot they heard Jules's shout from the after-part of the cruiser, the pad of his feet as he ran forward. . . .

"We've stopped being excess baggage," Blake said. "We're witnesses to murder."

Hours had passed since the killing. The Angel again drove southwards, now with Jules at the wheel. Grim and hostile after giving Bruno's weighted body to the sea, he had accepted Blake's statement that the engine-room required more attention than he could give it in a half-hour break from the interminable wheel watch.

Having won a full hour of relative freedom to move about, and with Herriot brooding sullenly in some hidden corner of his own, Blake had risked a council of war in the galley. Only Laura di Lucca was absent. She was in a state of emotional shock that left her unreachable, beyond tears or comfort, staring silently at nothing, alone in her cabin.

The galley fans roared their soft assurance against eavesdropping when Blake said: "Until this morning I was reasonably sure Herriot meant to take us back to Monaco and let us go. Bruno's death changes all that." He paused and then went on: "Herriot is much less likely to let us go now. He may intend to, he may not. I think our best chance is still to stick it out and hope that he will, after he gets the money. But we've got to do all we can to be ready for him in case he doesn't. Short of recklessness, that is."

Freddy said: "I saw his eyes while he was pulling the trigger on Bruno. I'm not reckless."

Blake said: "We've got arrangements to make. Freddy, I want you pacing the foredeck this evening, about dinner time. Behave as though you are too nervous to keep still. Valentina can keep you company."

"What do we do?"

"Keep a lookout for Jules and Herriot. Keep moving about to spot them if they come my way, but one of you will have to stay in sight of the wheel at all times. A lighted cigarette will mean danger; dousing it means all clear."

"What will you be doing?"

"Rewiring the radio-telephone. Jules took the handset and pulled out the power cable; but if I can jury-rig a new cable I may be able to repair the transmitter so that we can send an S O S, when we get a chance to risk it. I'm going to try, anyway." Blake tried to sound more hopeful than he felt.

"I want to help," Marian said.

"You will. I need you to man the wheel and watch for signals while I'm working." Blake looked around at his small audience. "Herriot is still primarily after money, and I don't think he'll resort to any more violence, if he can avoid it, until he's got back to Monaco and collected the ransom. That means we have two days' grace."

For some moments the soft blast of the fans was the only sound. Then Freddy spoke.

"I don't like counting on the ransom at all," he said uncomfortably. "Too many things can happen to keep it from being there when we get back."

"Herriot doesn't think so," Blake said. "He's put a lot of planning into making certain it will be there."

"He would be a fool if he were not absolutely sure of Roche," Valentina said. "And he is not a fool. The money will arrive."

Freddy's expression of unhappy doubt did not change, but he did not offer any further argument. No one else had any more suggestions to make before Blake left the galley, cautioning the others to stay in the forward part of the cruiser.

Afterwards Blake spent more time than was necessary in the engine-room, leaving it with several lengths of wire wrapped around his waist under his shirt. He had armed the ends of the wires with battery clips, and he carried a screwdriver and pliers in separate pockets so that they would not clink.

He went to join Jules in the wheel-house. . . .

George Samson continued to feel pleased with himself. Neyrolle's humble request for assistance had given him a feeling of power over the Monaco police.

Neyrolle telephoned in the middle of the afternoon with news of progress. He said: "We have found a woman who has information about Captain Blake's mysterious girl visitor. The woman is in my office now. Do you want to talk with her?"

GEORGE was at the Bureau in a matter of minutes. The woman waiting in the *sous-chef's* office was a plainly dressed, middle-aged Monagasque, with workworn hands and a shrewd peasant face, whom Neyrolle presented by explaining that she ran a small *pension* in Monaco-Ville.

"Be kind enough to tell Monsieur Samson the facts about your vanished guests as you told them to me, madame," he said.

"I did not say that they have vanished," the woman protested. "I only said that when one stays at a *pension* like my own, one ordinarily eats the meals for which one is paying, and I have not seen either of them since breakfast yesterday. The English girl left her clothes behind, and her luggage; also her passport, which I have already given to you, monsieur, and certain letters."

"You can see them later," Neyrolle told George. "The girl will be easy enough to trace. Tell us more about the man, *madame*."

"I have very little to tell. He called himself Herriot, and he was a small man, as I have described him to you. I never learned his nationality. His clothes have no tailors' labels in them, or any other identification. His business, he said, was his own." The woman sniffed. "I would be as reluctant as he to confess that I was a process server."

The *sous-chef* did not meet George's quick glance. George said: "How did you learn that, if he would not tell his business?"

"He told the girl, thinking I would not understand English. One does not run a *pension* in Monaco-Ville without learning a smattering of languages. I am no busybody, but one overhears things."

"What else did you overhear?"

The woman hesitated. Then she said: "I believe that the English girl came down from Paris looking for work, without a great deal of money, and, when she could not find a job, Monsieur Herriot offered her a sum, an amount I never heard mentioned, to witness the service of a legal paper."

"The paper could have been a writ?" George suggested. "A writ on the

"I make them as Christmas presents, but I can't bring myself to part with them"

MY BROTHER JOHN

See page 41

John Snagge, the radio commentator and announcer, is Geoffrey Snagge's brother

**"A tin for the Naughtons–
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yacht of an American, here in the harbour?"

"Yes." It was a grudging agreement. "The *milliardaire* whose picture appears in the papers from time to time." She hesitated again. "But as for Monsieur Herriot and the girl, they went away together yesterday morning and have not yet returned. That is all I know."

George said: "How long had they been your guests when they left?"

"The girl, nearly a week. The man, three days."

THE woman answered questions for some time after that before she convinced George that she had no more to tell. She offered only one further small piece of information. Although Herriot never had visitors at the *pension*, he received several telephone calls. At least one was from a man with a growling bass voice who spoke with a Provençal accent.

"One of the men on the jetty whom the Angel's steward believes seized the yacht answers that description well enough," Neyrolle said, when the woman had been dismissed. He took an English passport from a drawer and slid it across the desk to George. "The girl puzzles me. Herriot, having left nothing by which he could be identified, is probably an experienced criminal. The girl, on the other hand. . . ."

Neyrolle stopped. George had opened the passport and was staring at the photograph of its holder with an expression of stunned recognition.

The *sous-chef* said quietly: "You know her?"

"I met her in Paris." George's bewildered expression did not change. "She's a showgirl."

"When did you see her last?"

"Ten days ago. Just before I came to Monte Carlo."

"Where did she live?" Neyrolle was making rapid notes.

"I don't know. I met her at a night club where she worked. We went out together a couple of times . . . but this is all quite mad. She can't be in Monaco. She would have looked me up—she knew I was here."

"Apparently she was careful not to let you know that she was also here, which makes her carelessness with the passport and letters even more puzzling. I do not understand why she left such a clear trail behind her."

"You don't think she's mixed up in anything crooked? At the worst, she may have seen a chance to make a little money by witnessing the service of a writ. There's nothing wrong in that."

"There has been no writ of attachment issued against the Angel," Neyrolle said. "An application for such an action is at present before the high court. That is as far as matters have gone."

"I can tell you right now that we're never going to reach a unanimous verdict"

It took moments for the implications of the statement to penetrate George's mind. Then he said: "What about the money Herriot offered her? What was she being paid for?"

Neyrolle reached to take the passport from George's fingers before he replied: "Perhaps you can give me the answer to that."

"I don't follow you."

"Observe. You go out with a girl in Paris while you are studying the habits and escapades of Monsieur Farr. Inevitably, you discuss the subject which interests you. The girl learns that Farr and his yacht are in Monaco. She also learns that he has a weakness for young and pretty girls. She is young and pretty, as witness her photograph.

"She comes to Monaco, careful to hide from you the fact of her presence here, and vanishes at the same time that Monsieur Farr, his yacht and his guests disappear from the port in mysterious circumstances. We find a clear link between her, Herriot and the two men on the jetty, who have also disappeared. The plot, whatever it is, gives evidence of careful planning, and intimate knowledge of——"

"Wait a minute," George interrupted furiously. "By God, if you think I'm mixed up in this in any way, I'm through! I'm getting out here and now. You make your investigation. I'll dig up my own story."

"You are not through, and you are not getting out, monsieur." Neyrolle looked up at the red-faced reporter with chill assurance. "I have at last reason to believe that a crime against Monsieur Farr was committed within my jurisdiction. By what means and to what end I intend to discover, and will take steps to bring the criminals to justice. Until that is done, I shall not ask for your co-operation. I shall demand it. . . ."

Marian came to the wheelhouse on the dot of eight-thirty that evening, bringing food and some black coffee. She found Blake alone.

"How are things below?" he asked.

Marian said miserably: "Laura di Lucca is still sitting in her cabin, just staring at nothing. I tried to get her to eat something, but she wouldn't even look at me. Herriot is in the saloon now. Most of the time he listens to the radio."

"And Jules?"

"I don't know. I haven't seen him."

"He may be sleeping. They must take it in turns. What about Freddy and Valentina?"

"They're already out there. Waiting."

Like a second answer to the question, a lighter flared on the foredeck. Valentina's classic profile showed briefly in the small illumination of the flame as Freddy held it for her cigarette. The cigarette glowed brightly and then was extinguished in a shower of wind-whipped sparks.

"We might as well get down to it," Blake said. "Take the wheel. The course is two hundred and forty, and you know what to watch for."

They were quiet while Blake worked. Then the girl said suddenly: "Do you really think Herriot will let us go? Is there any reason for him not to shoot us all, now that he's killed one of us?"

BLAKE was silent while he searched for reassuring words. At last he said: "We've got to believe that he will let us live. If and when it begins to look as if he isn't going to, I'll try an S O S with this thing. If that doesn't work——"

"Freddy is lighting a cigarette," Marian broke in urgently.

It was the warning signal, and Blake bundled the wire and tools into a drawer of the chart table, then jumped for the wheel.

But it was Freddy, not Herriot or Jules, who appeared. He said: "Sorry, I guess the cigarette was a false alarm. Everything's okay. Herriot is in the saloon and Valentina's watching out for Jules. I wanted a word with you, Jim."

"I'll go," Marian said. "If you can manage without me now."

Blake nodded and she went out. When she was out of hearing, Freddy said uncomfortably: "Jim, after what happened to Bruno, how much chance do you really think there is that any of us will come out of this alive?"

"I've told you," Blake said flatly, "there is a chance. Whether it's a big or small one, I don't know. If no one else defies Herriot openly, and so long as Roche brings him the money——"

"That's just it. That's what's eating me," Freddy said.

"What do you mean?"

Freddy said: "There isn't going to be any hundred thousand dollars waiting when Herriot gets back to Monaco. I cooked the scheme right from the beginning. The cheque Herriot made me write took Roche straight to jail."

To be continued next week

Sam Shuttle's silver spoon

Continued from page 23

own tankard. He tippled, and occasionally toppled, as a result.

"Besides," said Miss Rose, "imagine Mary having a father-in-law that's captain of the darts team at the White Lion."

All the same, Ludyard couldn't see Miss Rose's viewpoint. For some time the village discussed the problem, particularly in the sub-post office, and it was generally believed that the young couple would marry, whatever Miss Rose felt about it; except of course by Mrs. Jordan, that wizened and walnut-skinned neighbour of Sam, who declared, quite outraged: "Why, Miss Rose's father was an admiral!" as if that disposed of the whole matter.

But it was not very long before more sensational news broke to occupy the minds and tongues of High Ludyard.

"Remember old Corny Shuttle?" the villagers asked each other. "Sam's brother that used to play right-half for Crake Wednesday—skinny bloke, used to work at Skiddo Bates's garage? *You* remember; went to Australia years ago, before the war. Yes, the one everybody thought'd marry Maggie Swan—that's him.

"Well, he's dead. Taken off sudden with thrombosis when he was cruising in the south seas in his yacht. Yes, his yacht. Well, he found a solid mountain of uranium somewhere in the bush and died worth millions. It's a fact. And who d'you think's next of kin, the man that gets the whole pile?

"Sam. His brother Sam. It's true, I tell you. Old Davis, the lawyer from Crake, was up at Coachman's Cottage two hours this morning breaking the news, and soon as he'd gone Bell the bank manager came. He's there yet and that other car, the green one, that's the Australian ambassador's, or consul's, or something. If you don't believe me, wait until old Sam comes in, and ask him yourself."

So they did, as soon as Sam came in to the White Lion that evening to lead the darts team against the Green Man at Tipcoe St. Mary.

"Now listen," said Sam sadly, "if I've gained thirty thousand, I've lost a brother, cut off in his prime. I'm only turning up tonight so as not to let the Lion down, and because I dessay it'd be *his* wish. As for the money, what with probating and all this lawyer's back-chat, I don't know what'll be left of it or when I'll get it. One thing's certain sure. I haven't got it yet, and any of you lads that drink with me'll drink mild and bitter. And now I'd take it kindly if you'll leave me alone with me sorrow until the coach comes."

And for the rest of that evening, when not actually throwing darts with much less than his usual accuracy, Sam sat alone with his sorrow and the current pint of mild and bitter.

After that, not even his cronies ventured to ask Sam about the money, because Sam was clearly taking Corny's death pretty hard. He even resigned from the darts team, saying his heart wasn't in it any more.

No one ever knew precisely when Sam did get his money, but there was evidence pretty soon that he was spending it. He turned up two hours late at Shaylor's yard next day, but old Nick Shaylor was rather surprised to see him at all.

Nick fingered his iron-grey moustache and said: "I suppose you're not working for me any more. How about me working for you? For six hundred I'd turn Coachman's Cottage into a real house."

Sam pondered this proposition seriously. "Okay, Mr. Shaylor," he said at length. "You show me your specification. You'll pay me my wages as foreman, I suppose, for looking after the job? And I'll want an architect to pass the work after it's done, before I settle with you."

"Oh you will, will you. . . ? Well, you're a hard man with an old friend like me. But work's short and I'll do it."

"I'm not hard," said Sam. "Business is business, that's all. You never have a chance to make any money until you've got some."

The work went forward accordingly. Coachman's Cottage was rebuilt until that lop-roofed hutment had been turned into something that would have served for any stockbroker's dream of a rural hideaway, with its loggia, sunk garden and swimming pool. But you can afford whims when you're rich and, within a short time of its having been finished, Sam sold the cottage and went to live in an hotel in Crake.

Then he bought his first car, quite a demure little vehicle; and by this time all the suits he wore were best suits; and he was always cleanly shaven now, and there was never any dirt under his fingernails.

These weren't the only differences. Sam grew thinner and the old, soggy look of bovine content went clean out of his eyes, which were now gem-hard, anxious, wary; even, you might have fancied, guilty. People looked at him and said that money couldn't buy happiness.

Very rarely now was he seen to fling a dart at the White Lion; and he threw nothing else about there, neither his weight nor his money. Here was none

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of the brashness of the local-boy-made-good with a treat-the-house manner. Indeed, some said he was a damned miser. He complained as bitterly when short-changed as if the coppers on the counter were his last. It was utterly different from what everyone would have expected of old Sam.

The odd thing was that, in the main, Ludyard liked Sam for it. They called him sensible. He hadn't let thirty thousand go to his head, a feat which calls for a good deal of what the English admire most, in Ludyard or anywhere else: self-control.

"He wasn't *born* with a silver spoon in his mouth," said the landlord of the Lion, "but when it came, he had the digestion for it."

About six weeks after his brother's death, Miss Rose, by means of a brief note written in the third person, invited Sam to the White House to take tea with her.

She anticipated an unpleasant afternoon. She did not doubt that this suddenly enriched public-bar character would prove to be a swaggering and swollen-headed bore, fast drinking himself to death on his inheritance. Her only hope was that she would be able to insult him deeply enough to make him oppose as bitterly as she did the marriage of his son and her niece.

But Sam sat solemn-faced, balancing a tiny cup and saucer in his great red hand, speaking only when he was spoken to and, at such times, rather well. His solemnity of face was the result of the intense concentration he found necessary to enable him to answer with every appearance of utter frankness—but also with every ounce of guile he could muster—the oblique questions directed at him.

He had trained hard for this encounter, was dressed in reticent clothes, did not smell of liquor or tobacco, had clear whites to his eyes and no nicotine on his fingers. And while he deliberately refrained from waving thirty thousand pounds over his head, he very subtly conveyed that he could have done if he'd been fool enough.

Miss Rose was very much surprised by Sam. She was even more surprised at herself, when, towards the close of

MONEY—2

Can anyone remember when the times were not hard and money not scarce?

R. W. Emerson

the interview, she found herself saying: "We can have the wedding reception here, of course, and I think Frimpton's would be the people to do the catering, unless you know anybody better."

No, Sam was quite sure that there was nobody better. His heart was singing. The victory was his—though only he knew at what cost it had been achieved. . . .

Two months later Dick Shuttle married Mary Gillow at St. Clement's Church with all the appropriate pageantry. As much local attention was focused upon Sam as upon the bride in her twenty yards of white silk; but again he did very well—kept sober, chose the words he felt certain he could pronounce, and disgraced nobody. The indisputably happy pair flew off to honeymoon in Majorca.

Next morning Nick Shaylor contrived to have a word with Sam. To do this he stood in front of Sam's car in Limer's Lane so that Sam had either to stop or run over him.

"Dammit, Sam," said Nick. "Do you want to bankrupt me? You've sold that cottage of yours and, whether your confounded architect has passed it or not, I'll trouble you for that seven hundred pound."

Actual costs, as always, had exceeded the estimate.

"Didn't I pay that?" asked Sam, uneasily. "It's funny how these little things slip your memory. I suppose I'd better give it to you now." He took out his cheque book and wrote on his knee. "Seven hundred-ten-six. There you are."

"Thanks," said Nick. "I didn't want to chase you, but capital's a thing I can't afford to let out on hire."

"Capital?" said Sam. "Do you want another thousand?"

"For twice as much I'd make you a partner."

"Oh no," said Sam. "Not too many eggs in one basket, thanks. A thousand, and I'm back on the payroll as what? Assistant manager? My son can settle the legal angle when he comes back."

That's how it was done, in the end; Sam—he wanted something to do, he said—started back at Shaylor's next day, but before that he had driven over to see Ed Simmonds at Parsley Farm, and offered him three pounds an acre rent for the hill fields.

"There's good ballast there—beautiful sand and gravel," he told Ed. "I'll give you three pounds an acre and sixpence a cube yard on every thing I take out. It'll pay you better than those half dozen scraggy cows you keep there. I'll pay back rent and royalties after I've worked the first six months, and so on."

"So if you cut and run I lose all you can get hold of in six months, do I?" said Ed. "If it was anybody else, I wouldn't consider it, but I reckon your credit's sound, and we all know it amuses you to play Shylock. Let's talk it over."

In this way the sand and ballast pits at Ockfield began. Three weeks later, when they hadn't made much progress except that a couple of men were digging trial holes, Nick Shaylor said to Sam: "This satellite town at Corsenden. I wish I was big enough to put a price in for some of these jobs. There's a hell of a lot out for tender. How about coming in for a few thousand more?"

"I'll do better than that," answered Sam. "I can fix it so you can put in a price to beat the lot. You quote on the basis that you can get your sand and ballast at no more than it costs to dig and nobody else'll be able to come near you."

"But I can't get my sand and ballast at——"

"You can," said Sam. "You pay me a thousand for my gravel pits at Ockfield. Hell—that's cheap enough, there's fifty acres of the stuff! I'll put the thousand back in the business, and you can make me a partner. No one'll be able to touch your prices. My son can look after the legal angle. Where do we get the tender forms from?"

Sam had become a legend in the village by this time. Those who admired him called him shrewd, canny, hard-headed; the rest took him for a latter-day Scrooge. But, whatever other people's opinions might be, he went on doing business in his own way: results first, payment afterwards.

He bought half an acre of land where the new road would run into Corsenden and built a garage on it, but the manager he put in had been selling petrol for two months before Sam paid for the property.

It was true that he laid down half the purchase price of the *Ludyard and Corsenden Gazette* at once, but then the executors of the previous proprietor sold it off cheaply, not interested enough to realize that it would quadruple its circulation in the new town.

Even when Sam bought eight tip lorries as scrap at giveaway prices, Joe Clark had to threaten legal proceedings before he got his money. Sam had four usable vehicles put together out of the ruins of the eight old ones and started his haulage business; eighteen months later he was operating twenty-two up-to-date vehicles.

The way he acquired the Loxley Wood sawmills was a little shady, too, perhaps; young Bolton had been losing money and offered Sam a partnership if he could bring the profits up to a certain figure in two years. After some rather clever accounting Sam managed this by a margin of forty-five shillings. A year later he bought his partner out.

However, four years or so after news of his brother's death had reached the village, it did seem that Sam had

"Yes, Auntie, I am. . . . In fact I'm eleven sixteenths of an inch taller than when you last came"

relaxed a little. He mellowed, could occasionally show undisguisable generosity, and was known to pay out spot cash without actually wincing. Thoughtful people imagined that he was recovering from the unsettling shock of a great inheritance.

It was fairly certain that he still had most of it. Shaylor and Shuttle were now completing their large contracts in Corsenden and were undertaking others all over the kingdom; the newspaper, the garage and the haulage business were prosperous, and even if the sawmills didn't make very much money, neither did they lose any. Sam was fast becoming the biggest single figure in the High Ludyard district and found himself greeted with respect wherever he went—even at White House. . . .

It was on the last day of an unusually spring-like March that Sam called, with momentous questions in his mind, upon Miss Rose. He had been a not-infrequent caller during the last years; together he and Miss Rose had beamed upon photographs of the twins and he had learned to share her enthusiasm for topiary and Jacobean furniture.

Today there was about him the same grave air of concentration he had shown on his first visit to Miss Rose. They took tea together, as they had often taken it before. But affairs ceased to take the almost traditional course when Sam, nerving himself—although not sufficiently to prevent his cup and saucer rattling in an unsteady hand—offered Miss Rose nine thousand pounds for White House. He was tired of living in hotels, he said.

"Oh dear me," said Miss Rose, stiffening a little. "No. I wouldn't dream of it. This is my home. I certainly wouldn't leave it." But she could not help reflecting that it was twice what her agent had told her the place was worth.

"But I don't want you to leave," Sam said. "You know, Rose, there's a way of keeping the house yours *and* mine, at the same time putting it out of the power of anyone to say anything they shouldn't. Come now: I don't want to grow old alone. Do you?"

Miss Rose had reached that middle-agelessness of women which sets in so becomingly with many of her sex; but now youthful expressions appeared on her early matron's face. She blushed quite distinctly, and her pulse thudded in her ears; but whether these effects proceeded from rage, shame or pleasure, she was much too confused, at that moment, to decide.

As it happened, she did not have to decide; for now, at this critical juncture, there came a knocking at the door, a loud and confident tattoo. Immensely grateful for this diversion, Miss Rose ran to answer it.

A tall, thin man was waiting under the plaster pillars that supported the porch of White House. His clothes were somewhat seedy, frayed at collar and cuff; his complexion was sallow, a little darkened by too long an interval since his last shave; his very blue eyes were direct and challenging.

He asked if Sam Shuttle was in the house. "I'm his brother Cornelius."

Miss Rose knew instantly, of course, that the man was an impostor. "Oh no," she said, "that's ridiculous. Cornelius Shuttle died five years ago in Australia."

"Well," said the thin man, "that's what they tell me. But wouldn't you think a fellow'd notice it at the time?"

Some premonition had brought Sam to the door. He staggered back as he exclaimed: "My God, it's Corny!"

"In the flesh," answered the thin man composedly. "You parricide!"

"Corny, I——"

"Oh, I've heard all about it," said Cornelius. "They told me all about it in the village, when they got their breath back. Down at the post office they're keeping old Ma Jordan alive with smelling salts. But just tell me, why did I have to die so young?"

"It's really old Corny!" said Sam, patting his brother on both shoulders and looking him intently in the face. "Well, of all possible things! How are you? What've you been doing? How'd you——?"

"Never mind the prodigal brother

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"What's the little scamp done wrong this time?"

stuff," said Corny. "I've come back from the grave to find out what I died for."

"Well," said Sam, "I'll have to make a clean breast of it. I killed you for your money."

Miss Rose sat down on the wicker chair on the porch, out of breath and countenance with bewilderment.

"I never had any money," said Corny. "Look, Sam, I've had my name taken in vain and I want to know what the hell goes on."

"Well, all right," answered Sam, "I'll tell you and it'll be a relief to do it. . . . A few years ago my boy Dick wanted to marry this lady's niece and if he'd had a father any better than a low-class layabout there wouldn't have been any trouble. But it hit me pretty hard that because I'd never amounted to anything there'd have to be a gipsy's curse on his wedding. See what I mean?"

"Sam Shuttle!" cried Miss Rose. "Are you suggesting——?"

"Just you be quiet a moment, ma'am," said Sam. "I'm talking to my brother."

He paused, and then went on: "There didn't seem much I could do about it, you see, Corny. And then one day Davis, the bank manager, happened to call at Coachman's Cottage to talk about some bathroom tiling I was going to do for him, and about the same time the lawyer from Crake drove up to speak about Dick's prospects, and one or two other people called as well; and when they'd gone I went out to pull a stick of rhubarb and old Ma Jordan leaned over the fence and said: 'Such goings and comings! You bin and come into a fortune or summat?' And then it came to me, in a flash."

"What came to you in a flash?"

"Why," said Sam, "it came to me that the next best thing to blue blood is red money. So I killed you off, Corny. . . . I killed you off and you left me all your money——"

"Now just a minute," said Miss Rose, "if you——"

"Excuse me, ma'am," Sam told her, "I am still talking to my brother. . . . So you see, Corny——"

"I'm damned if I do," Corny answered. "You own half this county, as far as I can make out. That car of yours out there cost more pounds than I ever had shillings. Don't tell me you can stay in the higher income group for five years in the same location on a cock-and-bull yarn like that."

"You can, though," answered Sam. "Here I am to prove it."

He drew a deep breath. "To begin with I drew two hundred out of the Post Office, which was every penny I had in the world. I meant to make a show for long enough to get Dick married and then—well, emigrate, I suppose. But then Shaylor did the cottage up for me and I sold it and made a clear three thousand. And that gave me ideas.

"You see, I'd got credit. The fact is that if people think you've got money, they don't ask you for it. I began a dozen things on tick. I was damned lucky, of course. To tell you the truth, Corny, I reckon I've just about got your thirty thousand by now."

"You can hand it over then," said Cornelius. "I'll be considerate and take it in instalments. I guess I could make a fair killing for libel, anyway."

"You can manage my new garage at Takely if you want to," Sam said. "You always did know a sparking plug from a gudgeon pin. Twelve hundred a year and commission."

"I can't think why we're all standing out here at the door," said Miss Rose, coming to life again. "Do come in, Mr. Cornelius. . . . Oh dear, oh dear! Everything's so confusing."

So they went in. Sam and Rose took another cup of tea each from the pot, but Cornelius preferred a glass of whisky. The atmosphere between the brothers was cordially fraternal, but Miss Rose remained distant and for the most part silent.

Then Corny left, to take a stroll through the old village again. He wanted to astonish people, he said.

When Sam returned from seeing his brother out of the front door, he found Miss Rose sitting sternly and inscrutably in her armchair.

"I'm glad that's off my conscience at last," he said. "Except for what you must feel about it."

"What I feel about it," answered Miss Rose coldly, "is that you are a shameless fraud and impostor. And how dare you speak about me as if I were a snobbish, hypocritical——"

"So you were," said Sam. "The whole thing's as much your fault as mine. If it hadn't been for you——"

"If it hadn't been for me," said Miss Rose sharply, "you'd still be working on a building site at four bob an hour."

Sam laughed wryly. He said: "I suppose I would."

"Before your brother reappeared so dramatically," Miss Rose continued, "you may remember that you were asking me a question. I need hardly tell you the answer is: no. Most emphatically no."

"I can't expect you to say anything else," Sam said gloomily. "I'm sorry. I'd enjoyed our friendship so much that—oh, it's no good trying to explain. Whatever I say won't make any difference now."

"Not the slightest," said Miss Rose. "My answer is irrevocably in the negative. That's my answer. . . . But are you sure you remember the question?

"Eh? Well, of course I do."

"As far as I can remember," said Miss Rose, her voice beginning to falter for the first time, "the question was: Did I wish to grow old alone? And the answer. . . ."

There was an extremely jovial party of three at the Royal Hotel at Crake that evening. Those who become engaged in the serenity of middle life do not feel the need of seclusion as much as their juniors, having learnt to share rather than to hoard their emotions. And Corny, in a much-travelled life, had never enjoyed better company.

THE END

Headhunters of Ianagl

Continued from page 13

abandon. He was a well-built native, well groomed according to police regulations, with shining belt and harness, and scrupulously clean body and trimmed hair. His skin shone with health, his eyes were bright. His only indulgences were occasional cigarettes and an irritating tendency to hold himself superior to other natives, particularly to those not connected with the service.

He was completely unperturbed now, as he came to Harrison in the tent set up on the dancing-space in front of the fighting-platform of the long-house in Mubaidia village.

"Sir," he said, "there has been a killing in the village of Kerabini three days up the river. There is a man who has just now reached Mubaidia by canoe, and he tells of the killings."

"Killings?" Harrison said, sitting up. "What kind of killings?"

"Just killings for the taking of heads, sir," Nundi answered. "Not a killing of vendetta. A killing of women. Nine women of the village of Kerabini."

"Where is the man?" asked Harrison.

"I'll get him, sir," Nundi said. "But he can talk only the place-talk of Kerabini."

"Get him," Harrison said impatiently. "And get an interpreter."

"I can interpret the talk, sir," Nundi said. "I speak it well enough," he added a little smugly.

"You're too damn good to be true," Harrison said, but he waited until the corporal was well away from the tent, and he said it under his breath. Then he stood up and followed the corporal into the open air. . . .

THE informant was a bush Kanaka, rather better formed than the sago-eaters of Mubaidia, but only an average specimen of river-man; and his wild eyes were big with fright. As soon as he saw Harrison he launched, without being told, into a frantic tumble of words.

"He says that forty men of the Ianagl in three canoes came and took the heads," said Corporal Nundi.

"What was the way of it?" Harrison asked. "Let him begin at the beginning and tell whatever he knows. Was it a raiding party?"

Nundi conducted question and answer with the man for fully five minutes until Harrison was thoroughly annoyed. Nundi paid no attention to him at all, but continued questioning the man.

Finally he turned to Harrison and said: "It was not a raiding party, sir The women were working in the garden in the afternoon of the day before yesterday. The gardens are close upon the river bank, and there is only a fine screen of bushes and trees, growing here and there. There were nine women and a young girl in the garden, and the girl was lying asleep at the edge of the garden under the trees.

"The nine women were weeding, with their heads down, and they were watching their work and did not look at the river, though it was so close to the garden. And three canoes of the Ianagl men came down the river and they saw that the women did not observe them at all, and they drifted with the current past the garden until it was out of their sight.

"Then they came ashore and surrounded the garden. They crept round the garden very quietly, and when they were stationed all about it they ran and came quickly and rushed on the women and struck them down and cut off their heads."

"Was the village watching, that all this was known?" asked Harrison sceptically.

"No, sir," said Nundi, with complete candour and gravity. "The village is a little way from the garden. It was the girl lying asleep under the trees. She woke as a man ran past her, not seeing her. She saw the men run and take the women quickly unawares, and then she ran for the village and told the people. But the women were killed silently and the heads taken before she came to the village.

"And when the people of Kerabini village came to the river bank the men of Ianagl were already in the three canoes, and they were pulling upstream and holding up the heads of the women saying, 'See, she smiles,' and joking in this way with each other.

"And the people came to the river bank and saw the heads at a little distance only, and knew them for their own women and named the women; but the men in the canoes were a strong party, and they jeered at the men of Kerabini. And besides, not more than twelve of the Kerabini men were then in the village."

"Did they know the names of the Ianagl people?" Harrison asked.

"The headman Timu was the leader in one of the canoes and the leader of the party," Nundi said without hesitation and without checking with the Kerabini man. "And others were Mangalun, Gaupa, Bapi, Masin, Tareno, Yawin and Autitip. And there are others of whom the names are known in Kerabini.

"Ianagl is a growing village, sir, with nearly seventy fighting men. It is not a well-protected village, but they have no strong neighbours. There were not more than thirty women in Kerabini, sir, and they have lost nine. The leader of Ianagl, this man Timu, is well known all up and down the river. I know this river well, sir, and they fear the man Timu. I think that he swaggers more than he kills, but he has a bad reputation."

"Dammit, his reputation doesn't come into this," Harrison almost snarled. "And leave your thoughts out of it."

Corporal Nundi looked surprised. He had given an excellent report and he knew it, as did Harrison.

Harrison brought pencil and paper out of the tent and made long and careful notes of the evidence of the man from Kerabini, and in the morning they turned their backs on his headquarters at Arodi and went on up the river.

At Kerabini he checked the evidence and, subject to only a slight conflict of identification, entered the names of thirty-four accused among the notes he carried. He camped at the village and in the morning set out for the village of Ianagl, leaving his carriers behind

MONEY—3

If you would know the value of money, go and try to borrow some.

Benjamin Franklin

and taking only his armed policemen.

It was to be his first contact with these people, though he had read of them in previous patrol reports as "a sullen and unco-operative tribe."

According to these earlier patrol officers, they made no attempt to trade their native foods, to assist in pitching camp, or to work as carriers. They kept themselves to themselves, standing with folded arms which were never empty of stone axe or steel trade-knife. They were axe-fighters, who used the bow and arrow, but not for preference.

They were suspected of cannibalism, and there was always considerable doubt whether the round house with cooking-stones in the village was ever used for the baking of pork; although the stones seemed always freshly black and greasy. There was always a doubt, too, whether the human shinbones and armbones with which their spears were tipped had come to them legally through the deaths of tribespeople.

They were ugly in appearance, flat-nosed, heavy-browed, and possessed of certain facial characteristics which, some said, pointed to Malayan strains in their ancestry. In spite of these, they were big men; light in the leg but with the heavy arms of the canoe-people.

Harrison's first glimpse of them was

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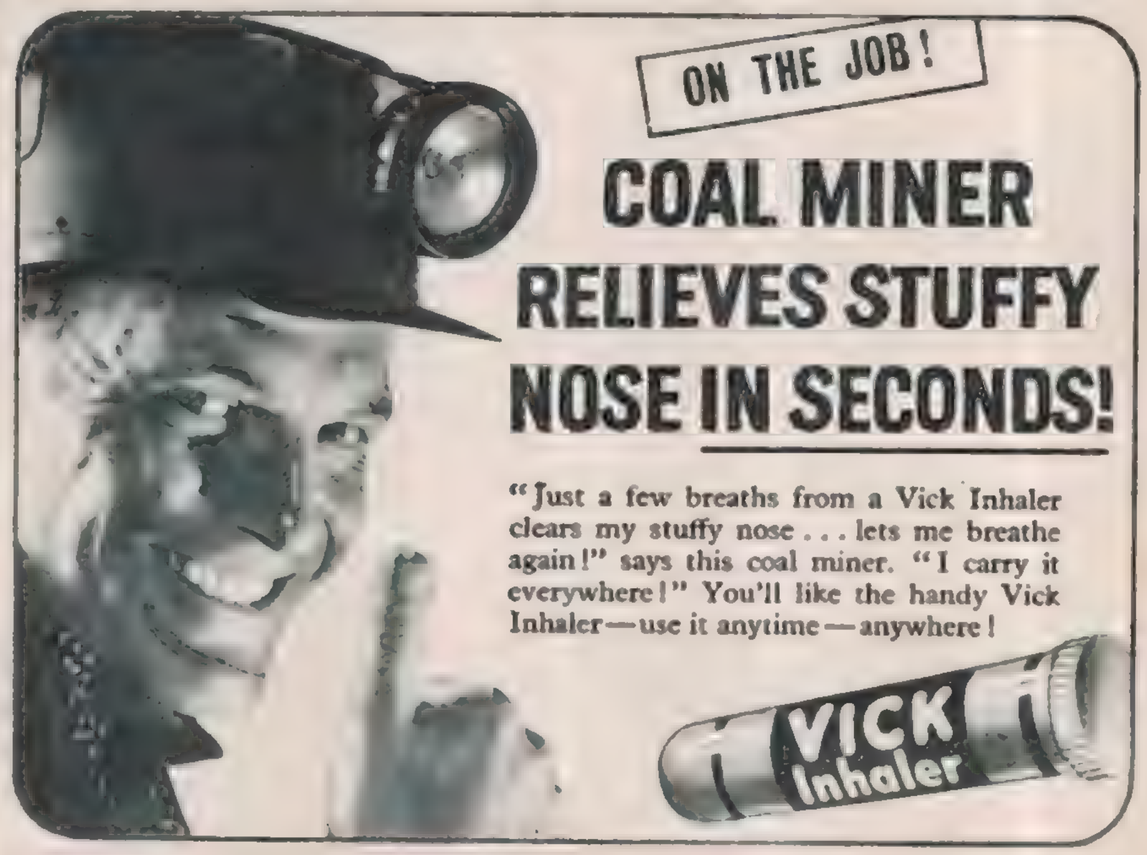
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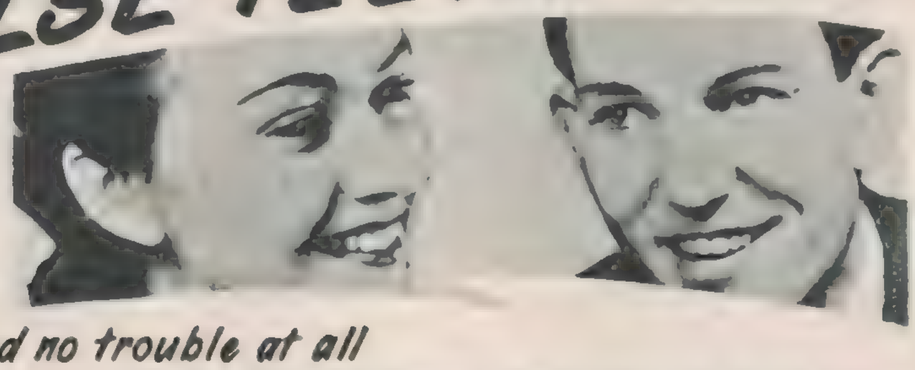

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surprising. In one of the broad and deep canoes the police used on the river, he had been able to set up for himself a kind of half-hammock of net. He had a book of Emerson's essays which he carried with him for the simple reason that it would last him a long time. He read a paragraph or two and then thought about it.

Sitting there, reading and thinking and sleepy in the sun, Harrison was aroused by a shout of "Sail-o" from the policemen. He looked up and saw, fortunately at a distance of several hundred yards, two heavy canoes coming round the bend of the river above him.

His force was at this time divided, with five rifles in his own canoe and five in the other, under Corporal Nundi. The other canoe was at this time under the trees by the bank, while his own was in midstream as the boys crossed to take advantage of the diminishing current in the shelter of the other side.

To his amazement, as soon as they came in sight, the canoes up-river put pace to their paddles and swept down on his own craft at considerable speed. There were fifteen or sixteen men in each canoe. They were painted and bedizened with feathers. They had yellow circles about their eyes and red bands of paint on their cheeks, and they wore headbands of cowrie shells sewn into tappa cloth.

They shouted and yelled as they came down the current, and the overriding emotion of Harrison, who had encountered and set ambushes, but never before had to repulse natives in direct attack, was one of amazement.

Just as he decided that the warriors were committed to the attack, the police boy Watsiup, sitting behind him, pulled at his arm and spoke low and earnestly, keeping his eyes on the advancing canoes.

"Sir," he said, "the fashion of these people is not to fire arrows in a fight between canoes. They do not fight with spears. But they will drive their canoes alongside ours and overset them and, when our men are in the water, then they will club them with the stone axes and none shall get to the bank."

"Well, thanks, Watsiup. That's very nice to know," Harrison said humorously. Then he realized that the leading canoe coming to the attack had completely overlooked the presence of Nundi's canoe by the right bank.

He called out in a loud voice, but as though he were addressing his own crew. He said: "One volley, Nundi, over their heads. All together when they are opposite you."

And almost immediately upon his words the rifles spoke.

The effect was fantastic. It was comic opera. In the narrow valley, overshadowed by cliffs, the sound of the volley was magnified beyond reason. For the men in the leading lanagl canoe, it came from nowhere. They fell in all directions, though they were unharmed, some leaping up from their stance in the canoe. These overbalanced, and threw the remainder in the water. All swam immediately for the bank, keeping their heads below the surface. They vanished in the bush, and Harrison saw them no more that day.

But in the after-canoe, fifty yards behind the first, there was no panic. It swept in to the attack with no reduction in speed. Harrison leaned forward wondering how he was going to deal with this, and he heard the voice of Nundi.

"Aim true," the corporal yelled. "Aim true, and fire."

Three figures at the paddles of the attack canoe fell, and again the canoe overbalanced, and the men went into the water; only this time the water was stained with blood. Again the swimmers reached the bank and vanished immediately into the forest, but three bodies bobbed on down the current.

Harrison watched them go. They represented the first deaths for which he personally could ever be held

responsible. His men pulled their two canoes into the bank and disembarked. As Harrison stood up, he realized he was still carrying the book of Emerson's essays and he put it down quickly.

He was flushed and angry. "You dolt!" he yelled. "You fool! You spawn of a crocodile!" All the tendons of his limbs were taut and quivering. He walked up to Nundi, and for a second it hung in the balance whether he would commit the unforgivable sin of striking him with the flat of his hand. He put his hands on his hips instead.

"Who gives the orders here?" he asked.

Nundi looked down. "I thought there was not time," he answered.

"You thought! You thought! I'll have the stripes off you," Harrison raged. But already the realization was taking him that he was making a fool of himself.

"The government does not kill unnecessarily," he went on in a quieter voice. "We do not take lives. We save these men, even if they are murderers, and bring them to the court alive. Only if the court says 'die' will they die, at the right time, in the proper manner. I told you to fire in the air."

"I have done wrong," Nundi said. He raised his eyes and looked at Harrison, and then went on stoutly, with more confidence than Harrison had seen a native display: "Truly you told me to fire in the air, and for the first volley I did this. But the second volley I fired without an instruction and it seemed it would be wasted if it too were fired in the air. There was no surprise in the second volley. The man in the lead of the second canoe was Timu, who is the headman of Ianagl village, and of whom we have spoken."

Now Harrison was caught. The second volley was rightly placed accurately into the canoe, and he knew it. He had spoken so because of the access and the release of tension; perhaps because of his embarrassment at finding the volume of Emerson still in his hand; and unfairly, because of a personal dislike of the corporal. But, still unfairly, he disliked more than ever the opportunity Nundi had given him to change the subject when he had talked about the headman. Nundi was too smooth a character, he felt.

"Don't forget," he said. "This is the last warning. Don't take it on yourself to give orders. Or to act without them either."

"I am sorry, sir," Nundi said honestly. "If I had thought at the time it was wrong I would not have done it. I will do what you say. I will not make any more orders." He hesitated. "I hoped the government would soon make me a sergeant," he added.

"Follow orders, or you will be a police-boy again, with no stripes at all," Harrison said. . . .

There was blood on a trail through the undercarpet of the jungle, and Harrison would have followed it except that the war party had been so completely routed. He decided that a quick approach to the village itself might bring him there in advance of the warriors on foot, so they embarked and paddled swiftly up river.

In half an hour they arrived at the village, but it was deserted.

Ianagl consisted of one longhouse set in a clearing at the hollow of a bend in the river, so that the large fighting-platform, set out in front of the high-horned building like a raised terrace, commanded two river reaches—a long straight stretch upstream, and a shorter one downstream.

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MONEY—4

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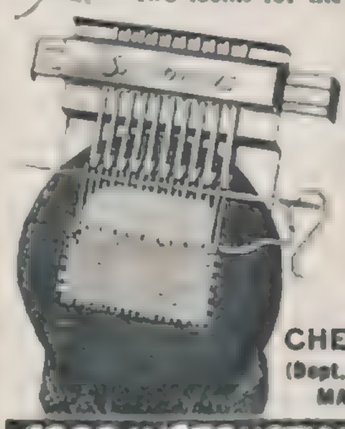

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By

Mrs. JACK HAWKINS

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CHICKEN NOODLE · VEGETABLE

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enough for one person only, gave entrance to the house itself. Through such a door, the Ianagl could be very selective indeed about their visitors. Inside it a short but high-vaulted hall was furnished with a rack of human skulls, each set in a separate pigeonhole in the rack.

Harrison spoke to the police boys, outlining his plans.

"First we return to the village of Kerabini," he said, "to get the carriers and the other canoes, and interpreters and guides. Then we will follow the Ianagl men until we hunt them down. Now our stores are gone and we cannot spend too long on the hunt, but if we can get some of the men who took the heads, then we will take them to a court and later come back for the others. If we can get the headman Timu we can put a halt to the taking of heads for a time, and we can come up river again for the others."

This was the programme they followed, but at Kerabini they ran into unexpected delays. The small village, already short of labour because of the death of the women, was hardly prepared to supply extra carriers and interpreters for the expedition; and their reserves of food were small. Moreover, when the men were persuaded to join the party they were frightened.

In addition, he had advice from the Kerabini that the Ianagl people would undoubtedly have taken to the sago swamps several miles above the village, and Harrison shuddered at the thought of combing the sago for men like these.

He stayed at Kerabini two days, and on the third morning decided to put in a concentrated effort for ten days and then return to base. He felt extremely helpless in that wild and alien country.

Something of his indecision and uncertainty transmitted itself to the boys, and it was a quiet group of five canoes that moved up river. As they came upon the bend of the river that would, when traversed, disclose the village of Ianagl, Harrison saw Nundi lean forward and speak to his paddlers, and his canoe drew forward of the others, approaching the bend on the inner side, as was wise, for the current ran less swiftly there.

For no reason at all, Harrison was about to shout to Nundi to tell him to get back with the others when he saw the corporal hold up his hand, and his men stop paddling, and the canoe drift quickly back down river. With a few strokes the paddlers put the craft alongside Harrison's.

"We are lucky," said Nundi. "The people of Ianagl are back in their village."

Harrison was astounded because the possibility hadn't occurred to him. Instantly, he blamed himself for not taking it into consideration and noted glumly that Nundi obviously had.

"If the paddlers and the interpreters and the carriers all get into three of the canoes, then perhaps we can come up close on the village before they see us," Nundi said.

"That's pretty obvious," Harrison commented. Then he corrected himself. "Yes, we'll do that."

THEY ran the canoes ashore on a mudbank. Then, while the men attended to the transfer, emptying the two lightest canoes which would be used for the attack, and placing the gear in the others, Harrison called Nundi and the other police and, squatting in the mud, drew with a stick the plan of the village and the river.

"Your canoe will go first, Nundi," Harrison said, "for even after they sight the canoes I will be more noticeable than you. After we come in sight of the village make all the speed you can and bring your canoe ashore on the up-river side of the longhouse. I will land down-river, and then we will run together behind the longhouse so that we may cut the house off from the bush behind. You saw the men in the village, Nundi?"

"They walked about, here and there," said Nundi. "They are doing what they do every day, and the men sitting on the fighting platform are talking among themselves."

Harrison looked at Nundi. This attack would show him what kind of a man the corporal was, whether he was all brag and surface, or whether he was a steady man in a fight.

"When they see the canoes the men walking about the village will run to the longhouse for their weapons," Harrison said. "They will not run away without their weapons. If we get behind the longhouse we will have them trapped."

The plan, direct and simple, went even better than he could have hoped. The canoes had rounded the bend and were well up on the reach to the village before the lookouts on the fighting-platform sighted them. For an instant all was confusion. There was a high falsetto calling from the platform, broken and interrupted by staccato shouts, and the clearing was filled with running men, all converging on the longhouse.

The police canoes drove ashore to either side of the longhouse, perhaps sixty yards apart, and the policemen abandoned them, running just as the arrows began to fly from the longhouse. The two lines of police ran together in a vee, like a flight of ducks. The arrows thickened about them, and

Song

by MABEL FERRETT

When I was growing seventeen
the sun shone every day;
I wandered through a maypole
world and down a dale of hay.
Then I was tall and handsome as
any turtle-dove,
But a young man dreams of fame.
It's an old man dreams of love.

My hair was red as sorrel, my
eyes were nutmeg-brown.
My stride was herculean as I left
my native town.
"Oh, stay!" the young girls
chorused and called me by my
name
But an old man dreams of love.
A young man dreams of fame.

The years have left me wiser. My
hair is dusty grey.
My seasoned footsteps falter
along the stony way.
The women flaunt their yellow
skirts and now their hair is
flame,
And an old man dreams of love
where a young man dreamt of
fame.

though no one was hurt, Harrison yelled: "Under the house. Get under the house." The files moved in under the longhouse, and there was time to consider their position.

As the men paused in the shelter of the great building, perched ten feet high on its piles, arrows came, more accurately than the first, from the surrounding bush. His troops were steady, Harrison noted. They were handling their bayoneted rifles like veterans.

Beneath the house was a small canoe, and some sago troughs carved from logs were stored on a small platform built between four of the piles. Harrison pointed to them.

"Three men, pull them down. Take cover and wait here," he said. "The rest follow me."

He raced to the front of the building and up the broad steps, saplings lashed horizontally at a slope, on to the fighting-platform, now deserted.

Ahead of him was the doorway, tiny, dark, menacing. It was built so that a man must stoop low enough to be helpless on his entrance. It made a man's head assume the position exactly propitious for hitting with a stone axe. Beyond the doorway, Harrison knew, was a murderer with a stone axe. But surprise had carried him this far, and he counted on surprise to aid him yet. He dived at the doorway, yelling, "Follow close." And just as he bent his head to enter the door a weight hit him on the hip and, taken off balance, he reeled and crashed over the side of the fighting-platform to the ground.

WEIRD thoughts hit men at times like these. He was most acutely conscious of the fact that, although he had his revolver in his hand and it was cocked, with his finger on the trigger, it had not gone off with the fall. Then he was racing round and up the steps again, and he remembered, or became aware, or puzzled out what had hit him. It was Nundi's hip.

Two police boys were still struggling to get in that narrow door. He pushed them aside and went in. Corporal Nundi lay on his face on the dark floor with a great gash in the centre of his head. Seven village men were lined up, their weapons on the floor, and the police boy Watsiup had the man Timu at bayonet point.

Lance-Corporal Kevi was on his knees beside Nundi, and Harrison, seeing the fighting situation well in hand, dropped down beside him.

"Is he dead?" he asked.

"He lives," said Kevi.

Harrison had his prisoners handcuffed, got into the canoes and raced back for Kerabini. He and his policemen contributed shirts and made an improvised bed for Corporal Nundi, and Harrison himself tended the wound. It was a bad one. The axe had hit across the front of the skull and bitten into the bone. Harrison had seen worse injuries, but here death had been close.

Watsiup was talking. "When the axe struck Nundi, Lance-Corporal Kevi took Timu by the arm," he said. "Kevi ran through and held Timu, who held the axe, and threw him down. Then we were all through the door."

The canoes were alive with the buzz of conversation. There was shouting and talking and a lot of boasting. Harrison smiled to himself. Already the carriers who had been on the mudbank throughout the fight were relating details as though they had been present, and the constables were correcting and adding to their stories. Harrison listened, down on his knees cleaning Nundi's wound, carefully shaving the hair from the skin over the skull, working with a solution of Condy's in the river water.

Nundi opened his eyes and watched him, and then he struggled to sit up.

"Lie still," Harrison said.

"I am all right, sir," Nundi replied.

He lay for a while with his eyes open, apparently untroubled by Harrison's operations on his wound.

"Again I broke orders, sir," he said. "There is something in me that makes me. I hope I do not lose my stripes, sir," he said.

This caught Harrison unprepared, and Nundi was talking again before he could answer.

"I was too quick for him. He was not ready," Nundi boasted.

"You were too quick for me, too," said Harrison. "Lie still. And don't talk."

"Sir, I must tell you. I was sorry to push you over. I thought it had to be done. Truly a leader should be in the lead, but we couldn't spare you well, sir."

Still the smooth character, Harrison thought. *He's consistent.* But there was admiration in his appraisal. Aloud he said: "Where did you learn to use your hip?"

"I am a footballer, sir," Nundi answered, and tried a grin. "A good forward, sir."

"A good man," nodded Harrison. He leaned forward. "A good leader, Sergeant Nundi." The corporal looked up at him.

"True, sir? *Sergeant* Nundi?"

Harrison nodded. "I think so, Nundi. I'll write a report tomorrow. When you are better it will be Sergeant Nundi. But you will have to follow orders."

Nundi closed his eyes. In spite of his wound and his pain, he looked happy.

THE END

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Derelict tower

Continued from page 17

dragged himself to his feet and looked across to where a line of thick cloud had formed on the far horizon.

Water was his only thought now. When the rain started, he would lie on his back and soak it in with his mouth open. He no longer thought about getting down from the tower. His strength and courage had gone and he was trembling with weakness.

On the corner of the tank a lightning conductor twisted up a couple of feet. He stared at it dully. It was blackened, and in places even the rust had been stripped off. In the corner of the tank, past which the conductor ran down to earth along one of the outer legs, he saw a hole, the edges bent and torn back.

Lightning had struck here again and again. Now a storm was coming, and most probably it would strike once more. If it did, he would die, and die terribly. He moved carefully over to the rent made by the lightning and looked down at the far beloved earth, so green and lush.

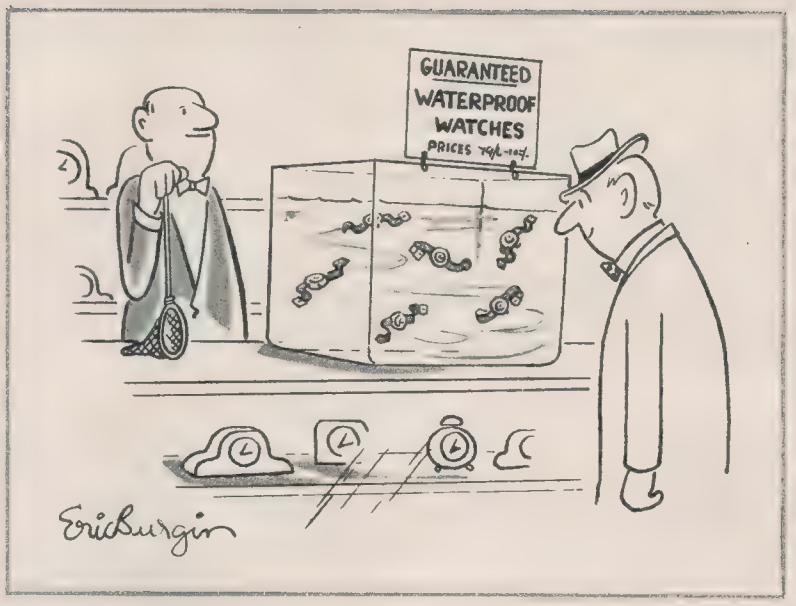
For a long time he lay gnawing at the skin on the back of his hand, steeling himself to try to get down by the leg at this corner of the tower. Then he saw a movement on the ground. He blinked his eyes, and in a rush of haste he croaked: "Charlie!"

His voice was scarcely audible. He cleared his throat and, getting to his feet, banged on the side of the tank.

"Charlie!" he shouted desperately, "Charlie, for God's sake help me. It's Bill." He struggled up to the top of the ladder and waved. "Charlie, I'm in the tank. Get me out, man."

The old man had followed the broad tracks Bill had left through the bush. He was not going to be cheated so easily. The tracks had brought him to the deserted settlement and the water tower, and now he could just hear the voice above him, and just see the head over the rim of the tank.

"Ah, so that's where you are," he



called up. "Why did you go up there?"

"Oh, Charlie! I'll tell you, man, I'll tell you! I was crazy like when I left you. I never meant to do it. Charlie—you wouldn't leave a man like this?"

"Why not? You ran out on me."

"That was different, Charlie. It was an accident. Charlie, have a heart."

He waited feverishly, watching the tiny figure on the ground. And then a faint hope came into his mind. He would try to tempt the old man, bribe him.

"Charlie!" he called. "I found a wonderful patch of uranium. You'll be rich for life. You can have it all if only you get me out."

"Fifty-fifty is all I wanted," Charlie called back, "but you didn't want it that way. And if I get you down now, you'll put a bullet in me this time. You wanted it all for yourself before this happened, and you'll want it again when your skin is safe."

"No, Charlie, I swear it. You can have it all. I'll tell you where it is if you get me down from here."

"Tell me now."

"No man, you'll leave me. I swear I'll tell you."

Bill told himself that what he would tell Charlie if ever he got down he could think of later.

"In any case," Charlie called, "how am I going to get you out with that chunk of ladder missing?" He turned away.

"You're not going."

"No."

Charlie examined the broken piece of iron ladder. Then, with his pick, he bent the broken shafts over to make hooks.

Finally Bill saw the tiny figure mounting slowly, dragging the ladder behind it.

"You'll have to come down to just above the break. I'll push the ladder up along the girder and you must catch it and hook it over the bottom rung."

Bill climbed slowly down. He saw Charlie pushing the ladder up against the leg. Bill made a grab at the nearest rung on the fragment extended towards him and nearly overbalanced.

The next time he caught it and hung the hooks over the rung on which he crouched. His heart was bursting as he stepped on to the broken strip and felt it sway wildly with his weight. Every downward step was a terrible effort of will.

Then he felt Charlie's hand on his ankle, guiding his foot to the rung on the other side of the gap. He had done it.

Exhausted he swayed down and down until at last he collapsed gasping on the ground.

A slow regular clicking like a tired metronome puzzled him. Looking about, his eyes fixed on the geiger counter. It stood on an outcrop of rock near the foot of the ladder where he had left it the night before on his sleep walk. That was his hyena—the geiger counter.

He went on listening to the clicking, and gradually he realized what it meant. The rock under the water tower must be heavy with uranium. And there would be more, here in Ndona, where the reef went down like the stern of a sinking ship.

"Where was that strike you were telling me about Bill?" Charlie said. He smiled slowly and ironically. "Fifty-fifty was all I wanted, and it's all I want now. Only—don't try that sort of thing again."

Bill looked at Charlie and back at the geiger counter beating slowly away to itself. He said incredulously: "You knew where the strike was before I did, and you still got me down."

"Fifty-fifty is all I bargained for, and I wouldn't want more," Charlie said. "It's hard for you to understand, isn't it, Bill? Or it was—until this happened." THE END

Can Russia beat us in the factories?

Continued from page 19

which heavy industry takes precedence over light industry, industry over agriculture, industrial building over domestic building, and investment, defence, education and research come before immediate consumption. Recently, agriculture has advanced and defence fallen back in the scale of priorities.

Its successes have been very great. The Soviet Union can produce almost anything that Britain can, from dams and canals to tractors and steelworks, jet bombers and atom bombs. The Bison, the Russian inter-continental jet bomber, is as good as anything the Americans have. It is being produced in very great numbers. The Soviet steelworks in Russia, and those exported to Poland, China and India, are as good as the British.

Russia is not technically ahead of Britain, still less of America. What is remarkable is that a country so backward thirty years ago should now be abreast of us.

Of course, as the result of haste in development, technology is very patchy. All the best technicians and the research have been concentrated in certain fields: armaments, basic industrial products, machine building, atomic power. A friend of mine who is a baker was profoundly unimpressed by an above-average Soviet bakery he was shown. But British steel experts recognize Soviet steelmakers as equals, and in atomic power and aircraft construction the U.S.S.R. is here and there ahead of us.

Technicians and scientists are very highly paid in Russia and they are all well trained. In 1953 two and a half times as many engineers of all sorts graduated as in the U.S.A.

Foremen and clerks, however, are still rather a weak link in the chain; they are hidebound and uneducated by British standards.

An interesting special class are the prize workmen. In origin these are pace-setters from among the ranks whom the Communist Party pulled out, honoured and publicised because they produced more than anyone else. Later they were supposed to have reorganized and improved methods of production, while remaining on the production line themselves.

This was bogus. The improvements were thought up by the management and their introduction was then carefully staged, with the prize worker in the centre of the limelight. Even this stage is passing. The prize worker is now a man from the bench who is indeed technically well educated, and genuinely consulted about innovations; yet in accordance with Communist philosophy he remains on the bench, pointing the way to other workers. His wages may equal the director's salary.

All this does not mean that the U.S.S.R. is a technologist's paradise. In its haste for results the Communist Party sometimes "adopts" a technical proposal before it is really ripe. Thus, after the war, the kok-sagyz plant was to produce rubber inside the U.S.S.R. and so save the importation of rubber. For a time the technical and political press praised kok-sagyz to the skies—but for some years now there has been no word of it.

Russia's great failure is in agriculture, which today is in an indescribable muddle. About one-tenth of agriculture is nationalized in huge state farms, which are very inefficient, and not "model" at all. The rest has been organized into collective farms. These are not nationalized, but each is an extremely tight and rigid form of producers' co-operative. The peasants still own their own houses. They also own large kitchen gardens, upon which they spend much loving care. These kitchen gardens produce perhaps a quarter of all the food in the Soviet Union—purely private enterprise.

The collective farmer may take his own private produce, and whatever he gets in kind from his work for the collective farm, to sell in the town on his own behalf. He bargains with all comers in competition with the state shops (and when food is short he doesn't hesitate to charge more than the state prices). Strictly speaking, peasants may not bring in their friends' produce to sell on commission—that would be capitalism and is illegal. But many peasants make a good thing out of doing just that.

At every point the peasant is in conflict with his Communist rulers. Little wonder that no one—neither the peasant, nor the rulers, nor the collective farm chairman who acts as a buffer between them—is content, or that nothing like enough is produced. Little wonder, too, that the government is for ever launching out into crackpot schemes.

SCHEMES for afforestation are quickly succeeded by schemes to make the desert bring forth grain—some of the very same land is included in both. Vast canals are dug to help irrigation, and stopped in mid-construction. At a stroke of a pen an area the size of a good average country is devoted to maize—only the climate is wrong and the right sort of maize hasn't been hybridized yet.

In short, it seems that Communism is only effective wherever mass-production, standardization, specialization and ruthless, sweeping orders from some remote centre are effective. Industry has been a success because it is all nationalized and can be planned in detail. Some authority—it used to be an office in Moscow, but now most decisions are taken locally—tells each undertaking how much to produce and at what cost, to whom it shall be sold and with what profit, what new factories to build, and so on.

This form of planning is a very clumsy device. Free competition can make better decisions about what to produce, and it does this without the administrative cost of a horde of officials. But the plan is the law of the land. And since nearly everybody is told to produce more at lower cost than last year productivity is a legal duty.

The spread of earned incomes between managers and workers, and between skilled and unskilled workers, is much greater than in Britain. Piecework is carried to fantastic lengths: at one time engine drivers were paid for hauling more per engine, so that trains were deliberately lengthened, to the grave overstrain of equipment.

Under this system trade unions are completely powerless, and the law treats restrictive practices as criminal sabotage. There is no law saying a worker may, and no law saying he may not, strike. But there are a number of laws about conspiracy and about injuring the government's economic policy. They are loosely worded, so that the authorities can use them or not against strikers as they please.

What goes for the trade unions goes for management. Discoveries and inventions become automatically public property. Restrictive quotas, cartels, gentlemen's agreements not to produce—criminal sabotage, the lot of them! Whole factories can be moved, enterprises amalgamated, regions of the country made to specialize, and groups of products standardized, without the endless resistance of vested interests that meets such attempts in Britain.

In foreign trade it looks as though, on balance, the U.S.S.R. is becoming more like Britain. Because of its failure in agriculture, it must export manufactured goods to live, and it is a vast importer of food, cotton, rubber and other raw materials. If this continues we must expect more and more Soviet industrial competition in world markets, even though Russia's need for more investment and more labour in agriculture may hold back her phenomenal industrial advances. THE END

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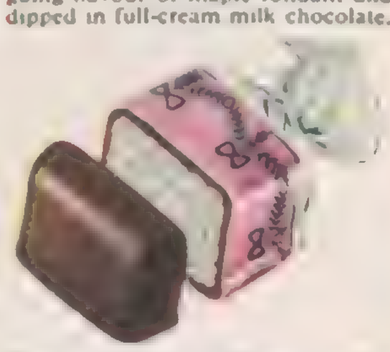

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furnishings and its masses of flowers. Any business with which Selfridge was connected must be represented by only the best.

What mattered most was the open door. Anybody could enter and be sure of a courteous welcome and hearing. A wealthy customer with a complaint or a request, an office boy with domestic trouble, a young assistant who wanted a rise, a pilferer begging forgiveness—the door of Selfridge's office was open to them all.

He had an intuitive mastery of feminine psychology—at least as far as business was concerned. He built his great commercial reputation in Chicago largely on his powers to attract women to the store by means of glamorous display. He measured the success or failure of his innovations and experiments by the number of women they brought into the shop.

"I helped to emancipate women," he once said to me. "I came along just at the time when they wanted to step out on their own. They came to my store and realized some of their dreams."

His promotion to head of the retail department of Marshall Field's brought changes in his personal life. He was able to bring his mother to Chicago and set her up in an apartment in an exclusive residential district. After many years of struggle to make ends meet, "Madame" now had her own carriage and two servants, and soon she was on friendly terms with local high society.

Harry spent all his time out of the store with her. He left the apartment at seven o'clock in the morning to begin work before the staff arrived. At eight o'clock a barber arrived to shave him in his office. In a concealed wardrobe hung a dozen suits into which he would change sometimes three times a day. Treed shoes of black patent leather stood in rows at the bottom of the wardrobe. The only time his office door was shut was when he changed just before lunch and in the late afternoon. Then he invariably flew through the retail department on a tour of inspection, handing out smiles to customers and staff, noting matters that had to be set right. All critical comments were made in private, and directly to the assistant involved.

There was no other executive in the store who could keep pace with his tireless energy. Some of them complained to Marshall Field that Selfridge would ruin the firm with his wildcat and vulgar schemes. In reply, Field merely opened his ledger and pointed to the booming profits of the retail department, saying that if those figures represented ruin he would like more of it.

Selfridge had been head of the retail department for over a year when he visited London, Paris, Rome, Berlin and Madrid. This was his first trip to Europe and he was enchanted. It was London that appealed most strongly to his imagination, both as a city and as a shopping centre. The business men with whom he came into contact struck him as shrewd but old-fashioned in their methods. "They have much to teach us in the manufacture of quality goods," he said, "but we can teach them a lot in salesmanship. A blend of the two is the thing to be aimed at."

He returned to Chicago in a state of ferment. He urged Marshall Field to open branches in New York, London and Paris. He outlined an ambitious scheme for an interlocked organization between the branches which would make Marshall Field's the greatest merchandising business in the world.

Marshall Field said he would consider the matter—and that was the last Selfridge heard of it.

Selfridge threw himself into the business of the store with boundless energy. As the goods that he had ordered in Europe arrived he displayed them with superb skill and taste. But he was profoundly dissatisfied with his position. He felt cramped and frustrated. In a discussion of his affairs with his mother, he said that the time was near when he would go into business on his own account.

Marshall Field became aware of his retail manager's mood. He suddenly increased Selfridge's salary from $5,000 to $20,000 a year—with bonuses. There had been no rise like this in the history of the firm.

The boy from Jackson was now on the way to becoming a rich man. And for the first time in his life, Selfridge seemed to enjoy the flattering attentions he received from the Chicago bigwigs. With his mother as hostess, he entertained lavishly. His house and its furnishings were greatly admired.

A collector by nature, he now began to acquire rare books, paintings by fashionable European artists, early New England furniture and bric-à-brac. He grew roses which became famous in the district, especially one variety which he named after his mother.

He had fallen in love for the first time in his life. The girl was Rosalie Buckingham, a young débutante whom he had met at a party just before his visit to Europe. She was a beautiful girl of good family. He courted her for a few months before becoming officially engaged, and shortly after his engagement—towards the latter end of 1889—he presented himself in Marshall Field's office and asked to be made a partner in the firm. The great man was nonplussed. This was the first time he had ever received such a demand from an employee. A rise in salary was one thing, a partnership something entirely different. Before Selfridge left the office, however, he had Marshall Field's word that he would be made a junior partner.

In the first week of the new year—1890—Marshall Field officially made good his promise by lending Selfridge money to buy his way in. It was a most generous act, and Selfridge never forgot it or ceased to honour the memory of the man who thus put him on the road to a fortune.

As soon as the news of Selfridge's partnership became known there was an outburst of hostility against him. Even John Shedd, who admired Selfridge's gifts, though often deploring his methods, protested to Marshall Field. When Selfridge heard of this, he snapped: "John Shedd wears too small a collar!"

I often heard him make the same remark in London about other people. He had a theory—he was full of theories, prejudices, superstitions—that men with thin necks lack courage and energy, that thick necks denote powerful minds and tough nervous systems.

Selfridge's wedding was an extraordinary affair. He flung himself into its preparations as thoroughly as if it was a mammoth annual sale at Marshall Field's. He hired the large Music Hall, centre of Chicago's cultural life, for the reception, and invited hundreds of guests. He ransacked the city for flowers and had them wound round the pillars and grouped in masses on the stage—an enormous screen of white roses and banks of chrysanthemums. A great choir sang to the accompaniment of organ and strings.

Selfridge "sold" his wedding to the public as skilfully as he sold merchandise at the store. But the snootier members of Chicago society thought that this grandiose reception verged on the vulgar, and, of course, it gave Selfridge's envious colleagues at the store plenty of material for satire. The low hum of critical comment rose to a loud chatter after Selfridge and his bride left for a short honeymoon in the east—accompanied by "Madame."

Selfridge was very much in love with his wife. From the day of his marriage until her death in England, some thirty years later, he was completely devoted to her happiness and welfare. The time came—in the days of his business and social successes in London—when she occupied a shadowy place in the background of his life, probably from choice; from what I saw of her in her late middle-age, she was a self-effacing woman, content to live quietly in the country. She had married a tornado of energy and probably found it a little exhausting.

In course of time, Rose—as Selfridge called his wife—bore him one son and three daughters. . . .

After his honeymoon, there was the question of opening a restaurant in the store. Selfridge had been striving to get Marshall Field's approval for this plan for a long time. The answer was always the same: "This is a store and not a place to eat in." But Selfridge at last pushed the scheme through.

He drew up the menus himself, designed the waitresses' uniforms, scattered his beloved roses on the tables, and decorated the room in soft shades calculated to appeal to women. The day after the restaurant opened, he told Marshall Field they would be serving a thousand meals a day within six months. This figure was passed well within the time limit. The restaurant at Marshall Field's not only made a big profit, but increased sales in the retail department.

It was an original and a revolutionary idea which has since been copied by almost every big department store in the world. It illustrates the breadth and subtlety of Selfridge's business vision. Anything that removed the taint of crude trade from shopping at his store was avidly seized upon.

In dealing with customers, Selfridge always relegated money to the background as a matter of little importance. The aim was to satisfy every customer, even if it meant returning money and taking back damaged goods. His assistants were instructed never to argue with a customer in order to put her in the wrong, never to admit that anything in the way of re-styling goods or arranging special deliveries was impossible, never to try to force a sale against the shopper's will.

These instructions are now commonplace in the retail world, but few shop assistants understood their importance seventy years ago.

Selfridge gave the world the freedom of his store—which has led to the freedom of all stores.

Despite his directorship at Marshall Field's, despite progressively booming profits for the firm and several increases in his personal cuts, Selfridge never really settled down to the prospect of remaining there for the rest of his life.

By 1903 he felt that he had reached the limit of his career with the company. So the day came when he told Marshall Field that he had decided to leave.

"Mr. Field," said Selfridge, "I have decided to go into business for myself. I am going to buy Schlesinger & Mayer's interests."

Field blinked. "Very good, Mr. Selfridge," he replied. "I hope you are successful."

"I can stay till the end of the year if you wish, Mr. Field."

"No, you can leave tomorrow if it suits you."

He was connected with the Schlesinger & Mayer store business for only a few months, and then he disposed of his holdings to a group of Scottish business men.

When he arrived in London two years later, he had a private fortune of about $1,500,000 (£300,000), most of which he pumped into the Oxford Street store. There is, however, some evidence to indicate that he had settled a large sum of money on his mother and continued to hold certain investments in Chicago property.

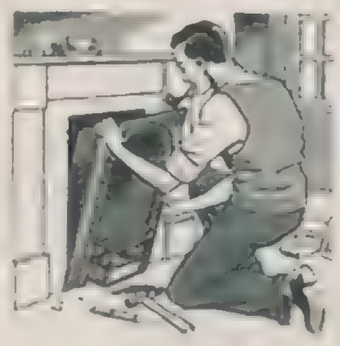
To these he devoted his attention after the sale of Schlesinger & Mayer's. For the first time since he left Jackson, Michigan, he began to relax a little, sharing his time among his gardens, society drawing-rooms, his library and local affairs.

He once said to me, towards the end of his career in Oxford Street: "I've lived three lives, Williams. Two by the time I was fifty, in the United States, and one here."

What he called his second life in

Make yourself at home

Each week, John Bull pays five guineas for the best original and practical "do-it-yourself" home hint from a reader. Those selected are illustrated by Stanley Herbert. Send your hints to: "Make Yourself At Home," John Bull, 189 High Holborn, London, W.C.1.



OUR old-fashioned bedroom fireplace was rarely used, so I removed it to make space for a built-in single wardrobe. First I took down the mantelpiece and grate, then carefully knocked out the bricks of the chimney breast to expose the flue to a height of 6 feet. I inserted a piece of 4 in. by 2 in. timber to form a support for the upper brickwork, and cemented it securely in position. I made the cupboard from wood and hardboard so that it was deep enough to take clothes hangers, and fitted snugly into the chimney recess.—*James Addison, Forest Road, Torquay, Devon.*

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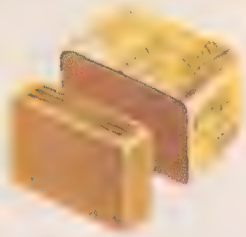

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the United States came to an end in 1905, when he left Chicago for a tour of Europe. He went to Paris and wintered on the French Riviera. In the spring of 1906 he was in London. Within a few weeks he left the hotel where he was staying and took a flat in Arlington Street, off Piccadilly. With this move his third life began.

Each of his lives was marked by a change in the style of his signature. At Marshall Field's he signed himself "Harry G. Selfridge"; at Schlesinger & Mayer's, "Harry Gordon Selfridge"; in London he became "H. Gordon Selfridge."

His signature was big, bold, flowing. He put so much muscular effort behind the writing of it that his desk was often littered with snapped pen nibs and pencils with broken points.

He once called me to task about my own signature.

"Why do you write your name so small, Williams?" he said. "It lacks authority. Make it big and people will think you're somebody. It's a point worth remembering."

WHEN Selfridge arrived in London in 1906 he had ready plans for setting up a department store there.

The idea had been fermenting in his mind ever since his first visit to London in the late eighties; but he was in no hurry to make a positive move. He resolved to make a thorough study of the retail market, trading methods and the psychology of the London public before he did so.

"At one time it was touch and go," he told me. "If I had taken the advice of my friends in London—and many of them were shrewd business men—I should never have done it. Only one of them—Sam Waring" [afterwards Lord Waring] "—held out any hope. And even he thought it would be a gamble."

Selfridge watched and waited. He knew that he must launch his plans at a time when conditions were favourable for credit. He had £300,000 of his own money to play with—plus his boundless optimism.

Both "Madame" and Mrs. Selfridge were with him in London at this time. He never made a move without consulting his mother. So far as I was able to observe a few years later, his wife exerted no influence on his business affairs; she was of retiring disposition, and devoted to her young family.

The question of a site for the store was soon settled. Oxford Street in 1907 was not the shopping centre of the West End, but Selfridge was sure that wherever he set up his store would soon become London's shopping centre.

Day after day he walked up and down Oxford Street observing shoppers in action. The transport problem engaged his close attention. He asked the bus companies how many of their buses passed along Oxford Street every hour, the average number of passengers in each bus during shopping hours, the number of stopping-places between Oxford Circus and Marble Arch. For it was between those two points that he had decided to erect his building.

The transport problem always fascinated him. Years later, he told me: "Never hail a passing taxi outside the store, always take one off the rank. It encourages the drivers to wait here, and so they become part of our service to customers—without any cost to ourselves.

"The same goes for newspaper boys outside the store. It has been suggested that I get rid of them. I wouldn't dream of it. They're part of our service, too."

For months Selfridge worked on plans for the building before handing them to the architect for translation into practical form.

Every detail of the structure had been laid down in advance by Selfridge himself. A student of architecture—books on the subject were his favourite reading until the end of his life—he was responsible not only for the original premises on the east side but also the whole building that was to take so many years to complete.

The entire layout of the floors was his; so were the decorations, the colour scheme, the lift arrangements, and the rest.

His layout provided for 130 departments, libraries, rest rooms, writing rooms, a restaurant and a roof garden.

The company was formed with a capital of £1,000,000. Not all of it was paid up. Selfridge himself invested £250,000 of his own money; the rest came from a bank and an investing concern. From the first, the business was short of money, and never during Selfridge's reign was it very affluent. Acute crisis was always avoided, however, for Selfridge was a master credit manipulator.

When the full scheme for the Oxford Street store became generally known in London's merchandising world, months before it opened, some of the biggest men in the business forecast speedy bankruptcy.

It is not too much to say that most of the rival interests were staggered. Actually, something over £400,000 had been earmarked for the building; but rumour blew this figure up to three-quarters of a million. Selfridge was by no means displeased; with all this he was getting plenty of advance publicity in the business world, even though most of it was hostile.

When he laid the foundation stone himself in 1908, he made quite a ceremony of it. Dressed formally in a bowler hat, black cutaway coat and striped trousers, he climbed on to the scaffolding before a small circle of friends, including "Madame" and Mrs. Selfridge, and assisted the workmen in lowering the stone into position while photographs were being taken.

He, and he alone, knew at that moment what a hard fight lay ahead of him. He had not nearly enough capital at his disposal to carry out his vast merchandising plans.

NEXT WEEK: Selfridge finds a woman sales genius

"No Name On The Door," by A. H. Williams, is published by W. H. Allen and Co. at 18s.

Travelling library

Continued from page 21

instructions in a book and made a wonderful lamb's-wool quilt."

In a remote hamlet a man borrowed an instruction manual on cars, saying he wanted to know how to repair his car. "He renewed it for a month," says Maureen Devine, "then said he was satisfied. Three weeks later we learned that he had sold the car to a borrower in the next village. Not long afterwards this borrower, in his turn, made a request for a book to tell him how to repair his car. . . ."

Although she once spotted a valuable book propping open a window at a farm, Miss Devine says that country folk generally take good care of books. "Recently a woman came in with a book she had borrowed from one of our school libraries. It was in good condition, but ten years overdue."

The West Riding does not charge fines for overdue books, unless borrowers keep them for more than two months. Borrowers have to pay for books they ruin.

When a pig in south Yorkshire ate three novels by Ruby M. Ayres it cost the farmer's wife 25s. 6d. Another woman who misplaced three books found them a week later soaking with her washing at the bottom of a tub where her two-year-old daughter had put them.

When William Coates pioneered the routes around Ripon six years ago his vehicle was often mistaken for a grocer's or ice-cream van. Now people greet the van's crew as trusted friends. "On the rare occasions when nobody at all is at home in remote valleys we know there's probably a wedding or a funeral, or an agricultural show in the district," says Coates.

His van is one of twelve small vehicles, all but one of which are built on ex-army 15-cwt. chassis. The vans are equipped with deep-tread tyres costing £26 apiece, and in the winter carry ropes, wheel chains and sand for dealing with ice.

Vans in all five regions of the library area contend with snow and high winds. One van was aided by a snow plough which itself got stuck and had to be rescued by the van. Another time, the army provided a Churchill tank to pull a mobile van clear from drifts near a barracks.

Miss Devine and Coates are liked and respected along their routes. Their van stops only five minutes at most farms. "It can be hectic," says Miss Devine. "People in the country often have good reading tastes, but they are sometimes vague about their exact requirements. One woman asked for 'something about clattering clogs,' but couldn't remember the title. I guessed correctly that she wanted *Love Across The Cobbles* by Florence Bone, a local writer."

Miss Devine may be asked to select "three thrillers for Mr. Blank, please, one with a blonde as the heroine."

"Or," she says, "a borrower will request 'that book on gardening I had out last year, luv.'" One woman wanted a book on spiritualism in order to communicate with her dead cat. A man who could not recall a book title confessed: "I began to read the book in jail—and got released before I could finish it. I must know how it ended."

This is a service that matters enormously to individuals. A straight-haired farm girl timidly asked the librarian on a different van for a book of beauty treatments. When the van paid another visit the librarian could not recognize the girl. Her clothes were smart, her hair had been set, and she was made-up attractively.

"Travelling libraries" existed before the war, but then they were simply crates of books sent to village centres, where unpaid volunteers dispensed them. Lancashire, in 1938, was the first county to experiment with a direct service van in the north Lonsdale area.

FORTY-SIX out of ninety-five county library schemes in England, Scotland, Wales and Northern Ireland now run a total of 140 mobile or travelling library vehicles. The biggest fleet outside the West Riding is in Lancashire, where there are twelve vehicles. Durham has eleven, Staffordshire has nine, and Derbyshire and Warwickshire eight each. Other authorities have one or two vehicles, though fleets are constantly expanding.

Bernard Oliph Smith, the West Riding chief librarian since 1940, calls his service "an instrument of informal education, not just a light amenity." Tall, bespectacled, Oliph Smith appreciated the need for a travelling library service when he moved from Middlesex to agricultural Herefordshire and saw the disparity between the services provided in static centres. "This forced me to think out a radical solution," he says. Consequently the West Riding was the first in the field with travelling libraries after the war.

Last year the service cost the county £30,000, apart from the cost of books. "But," says Oliph Smith, "in some areas ours is practically the only service rural ratepayers get in return for their money. I consider it a great and necessary thing that people without main drainage should at least be able to read with a minimum of trouble."

Some opposition was encountered. A vicar in south Yorkshire forbade his flock to patronize the vans because, he said, their reading tastes would degenerate and their lives be corrupted. Some parish councils protested, for in many villages the old part-time library centres, which the big mobile vehicles displaced, were also social centres and a source of revenue.

"But we saw that things would go in our favour early on in the experimental days," says Oliph Smith. "In 1946 two girls on my staff were touring the Forest of Bowland area, in the north-west of the county, with an experimental van converted from an ambulance. At one small farm the girls were greeted at first with hostility.

"Slowly the ice thawed, and then one day the farmer's wife asked the girls for their names. When the girls asked why, the farmer's wife said: 'We're wanting names for two of our calves. And you see, we always name them after personal friends and notabilities.'"

THE END

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BOURJOIS

Up in the world

Continued from page 27

otherwise nothing untoward happened until lighting-up time, six-thirty. I found that the car lights wouldn't work, and in slowing down to fiddle with the light knob I stalled the car.

In the darkness, I grew increasingly worried that something was going to run into us, and between trying to crank the car and signalling frantically to approaching traffic I was wearing down more than the battery.

I had blistered my hands and was perspiring heavily. Eventually I did manage to start the engine, and I drove the car and caravan up a roadside banking out of the line of traffic.

It stood there so lopsidedly that if a couple more tins of food had been placed on the lower side, the caravan would have toppled over. I made to get into the caravan to see if everything was intact, but Freda called out of the darkness that she had dropped the inside latch of the rear door. I remembered having done the same with the side door.

We were locked out, so I smashed a window with a hammer.

The caravan was tilted at a sharp angle, yet inexplicably we chose to sleep with our heads at the lower end. I kept waking up, puzzled that I should feel so dizzy. It was a most uncomfortable night and I was glad to see the dawn.

For the best part of half an hour I had to swing the starting handle before we could get moving, but we reached Chester without further mishap. An amiable landlord allowed us to park in his pub yard and apart from the inconvenience of having to carry anthracite from a bin outside, caravan life was proving not so bad after all.

On the following Sunday morning, we left for Bolton. A commissionaire at the theatre there suggested we should set up the caravan in the car park, but I pointed out that we had chosen to travel this way in order to enjoy the countryside and live in the fresh air. He told us about a farm situated about four miles outside the town where no doubt they would be willing to accommodate us. "It's up a narrow lane," he said ominously, "but I'm sure you'll manage."

WE found the place without difficulty. The lane was not only narrow but wound up a steep slope. Before trying to negotiate it, I decided to go up first on foot to meet the farmer and his wife. They were happy to have us, she said, and so began one of the most gruelling hill climbs outside the official competitions for sidecar combinations.

Half-way up the clutch started to burn. I set the brakes, put the car in gear, and Freda and I waited rather dejectedly for some sign of help. It came presently in the shape of a farm labourer with a tractor. Every few yards, as it approached us downhill, the tractor swerved up on the banking and back again. I asked the driver why he had done this.

"It's got no brakes," he said in a solid Lancashire accent, and laughed. Then, noticing my expression, he added: "Don't worry. It'll be all right."

I saw that the tractor wasn't even equipped with a towing knuckle, and when the driver produced an old chain I made it plain that I would prefer to get the caravan out of it all and back on the theatre car park. I appreciated his kindness, but I could see big trouble ahead if he were allowed to persist.

Backing a caravan is a snag-ridden business, but somehow I managed to reach the bottom. It was then that the farmer's wife turned up again to say that her sister had a farm not far away; a farm, moreover, without a hill to spoil it. Freda was keen to try it. What the farmer's wife had said was true: the second farm was on the flat, but the gateway was hardly four inches wider than our caravan, and the road outside too narrow to allow me a straight run-in.

It looked formidable to me, but the farmer saw no difficulty. I began the run-in, and got the car through; but the caravan jammed between the gateposts. That settled it. They could keep the countryside.

First, I unhitched the car and tried to turn round in the field. But it stuck in the mud up to the hub-caps. And unfortunately the farmworkers had gone to the milking.

Freda and I began to gather clinker and cinders to free the car. It took us a long time to do this, and to manhandle the caravan out into the road.

At this moment a double decker bus appeared, loaded with passengers. The driver sounded the horn, passengers leaned out of the windows urging us to get a move on, and all the time Freda and I were frantically trying to marry our two vehicles. I was inflamed. My hands were sore and blistered, my back was strained, and I had felt hungry for hours.

In addition I was embarrassed because the bus passengers were now laughing at my predicament. I felt less cocky than I tried to appear. Under the strain I was murmuring darkly about getting rid of the caravan, and Freda was crying.

We had first reached Bolton at midday. Now it was six-thirty in the evening as we pulled into the car park for a second time. We set the caravan on its jacks, put out the rubbish and coal bins and the Calor gas containers, and were just about to settle in when a man came up and said: "You can't stay here."

"Well," I replied, "I shall burn it."

He regarded me with the sort of bewildered, sympathetic look usually reserved for someone out of his head. Then he suddenly appeared anxious to avoid a bonfire, and conceded that we might park in a far corner of the area.

It was too much to hitch up the car again, so Freda and I man-handled the caravan to the new space and went through all the routine of setting it up again. Then I went to find some paraffin for the lamps. There was none. In the darkness we found some bread and cheese and then went straight to bed.

This initiation into the gipsy life was hardly typical. After that, when we had learned more about it, we enjoyed the sense of freedom that the caravan gave us.

We joined the Caravan Club, which issues information about sites, and when we went to Wolverhampton for the 1949-50 pantomime, *Robinson Crusoe*, we even entertained friends in the caravan.

One night, during the run of *Crusoe*, a London showman named Cecil Landeau came to my dressing-room during the interval. He had heard a lot about me, he explained, and would like me for a show he was putting on called *Sauce Piquante*.

"But you've only seen half the pantomime," I said.

"I'm satisfied," he replied.

I knew that my second half routine was stronger than the first and urged him to stay. At the end, he came back even more enthusiastic.

It seemed that *Sauce Piquante* was to be the biggest break I had ever known. I was to have everything. I was to sing, dance, play assorted musical instruments and appear in two sketches. In the early rehearsals, those connected with the show appeared to be doubled-up with laughter, watching

MONEY—6

Money is flat and meant to be piled up.

Scottish proverb

me, but, as usually happens through the long repetitions of any big show, they were showing signs of boredom as the weeks wore on.

Sauce Piquante was packed with big names: Moira Lister, Muriel Smith, Tommy Cooper, Bob Monkhouse, Joan Heal and others, and Audrey Hepburn was making her West End début.

As the rehearsals proceeded, I got the impression that Landeau was not terribly convinced about my work, and my time was being cut down progressively and drastically.

One afternoon, Landeau, a confident, ruddy-cheeked man with a strong will, announced that I was to drop out of one of the sketches. This left me with one appearance and a sketch. I caught up with him at the end of the rehearsal and asked why this had happened. "Well," he said bluntly, "it's no good, that's all."

I had to screw myself up to do it, but I answered back. I told him I was not being given a chance and that an audience would be the best judge. His reply left me without any doubt that he considered I was no use.

In the days leading up to that first night I could hardly sleep. I could see the flop coming. Apart from the brevity of my appearances I had been told that my Gump rôle was "not West End," and in place of my tight-fitting outfit I had been regaled with a fifty-guinea dress suit, shiny shoes and an immaculate hair style. The artificial glamour didn't suit me. I felt so uncomfortable that after one rehearsal I telephoned Billy Marsh. "For God's sake," I urged him, "get me out of this show."

Nothing could be done. I felt a misfit, a prisoner of my own ambition. Never had I felt more like running away than on that dreadful first night. I knew I was going to flop. As I left the stage, I was even more certain about it.

The show as a whole went well, yet at the close, when it is usual for a first-night audience to call for someone who has given an outstanding performance, nobody shouted for anyone. Cecil Landeau went up and made a speech, and as he finished I was shocked to hear a woman's voice pipe up from the gallery. "Norman Wisdom," she called. "Norman Wisdom. . . ."

IT was an unmerited bow, and everybody knew it, including, I suppose, Cecil Landeau, who had no option but to lead me forward. If anyone had earned a call, it was Muriel Smith. Yet here I was, being presented. A ripple of booing came up from the stalls and grew louder. I knew it wasn't so much because they positively disliked me, but because it was so plainly out of order.

I shrivelled. I was not only flustered, but touched. For in the whole of that theatre only I knew that the lone small voice was my mother's.

Next morning, Landeau offered to let me leave the show. I suggested instead that I would work for £5 a week or even nothing if I were allowed proper scope, but we could not reach any agreement. I stayed, in my limited rôle. The show didn't have the best of fortune, and later, when voluntary cuts in salary were taken by the cast, my pay dropped from £100 to £15 a week.

It seemed that I was back where I started: ahead was a vista of unemployment, months of it, before I was due to appear in *Cinderella* at Wolverhampton. In our caravan at Stirling Corner, on London's north side, Freda and I discussed this turn of events daily. We had saved a few hundred pounds towards the time when we wanted to settle permanently in a house, but it looked as if this would be needed for day-to-day living during the spell of idleness facing me.

As *Sauce Piquante* came into its last few days I was seized with an idea as desperate as our situation. I mulled it over for some time.

Then, on a cold morning early in November, when Freda was tidying the caravan, I explained what I had in mind. "If I could get over to America I might get a few television dates," I said, "with other things following up from them."

It was a risk, for it would mean throwing in most of the money we had for something that was at best uncertain. Freda was all for it. "Why not start right away?" she said. "It's worth it."

There is something rather chilling about buying a return-flight ticket with almost one's entire savings. To make things worse, I knew no one in New York, and I had few ideas about the right methods of approach.

I booked in at the cheapest hotel I could find, and first thing in the morning began the rounds of the agents I found mentioned in *Billboard*.

New York is not the homeliest of cities, and to a stranger it is far more cold and inhospitable than London. Even the bright lights of Broadway

that first night were austere. That's the way it seemed to me after a straggling day among high-pressure, chain-smoking show-business men in a variety of offices ranging from the dingy to the ornate.

Not one of them showed any interest, and an agent with mountainous shoulders drawled the information that English comedians were unwelcome. That was the understatement of the year as far as I could tell.

From the agents I progressed directly to the television studios with just as little regard. After a week this sky-scraper world was beginning to tell on me: it usually does when you have to think in terms of dimes instead of dollars.

To spread the allowance, I was existing mainly on soup in obscure side-walk cafés. Along Broadway, I felt like a positive trespasser.

On the eighth day, however, I did get a job; an unpaid appearance in a downtown beer parlour that was for all the world a mid-twentieth century version of a Victorian music hall except that nobody was interested in the acts. The customers just stood around concentrating on their women and beer, and the accompanist was a little old lady who looked as if she had been there since Lincoln's day, playing a piano that sounded rusty as if from spilled beer.

I tried vainly to raise my singing voice above the din and the tinkling of glasses. I could just about make out my audience through the fug of smoke.

At the end it was obvious that I was just as dim to them, for nobody had taken any notice, and when I finished, the row was neither greater nor slighter than during the act.

Desperation was creeping on. I slipped into a cheap café, where I ordered soup and sat watching the other diners—mainly cab-drivers—as they looked in on the TV set. It was a programme known as *Toast Of The Town*, with a solemn-faced, slow-speaking anchorman called Ed Sullivan, a real all-American who has become something of a modern legend in the States.

I noticed that the acts, however, were anything but all-American; in fact, the show was more international in flavour than most. Perhaps, I thought, this Mr. Sullivan might find a spot for someone like me.

Next morning, I located his agent and explained that I would like to see Mr. Sullivan. He appeared rather shocked at my temerity and made it clear that people couldn't see Ed Sullivan just like that. "He's an important guy," the agent said.

I GOT the impression I would need a letter of introduction from the President himself to see the man who ran *Toast Of The Town*, and the need to get on to this show was still on my mind when I called in a bar frequented by actors.

There, I learned that Sullivan lived in some opulence in a suite at the Delmonico Hotel on Park Avenue. I smartened myself up as best I could and made my way there. I found his room number without trouble and presented myself.

The man who answered the door wasn't the star I had seen on television. "I have an appointment with Mr. Sullivan," I lied, edging forward and trying to look assured.

"Sure," the man said. "Come right in." It was easier than I had expected. Presently, the unmistakable, craggy-faced Sullivan emerged from a door off the small hall. He looked brisk, friendly and reminded me of Humphrey Bogart.

"I hope you'll excuse me," I explained, "but I've gatecrashed your flat. I've come all the way from England. Would you allow me a couple of minutes?"

He gazed doubtfully about the confined hall, plainly wondering what I intended to do. Then he leaned back against the door-frame and nodded. "Okay. Go ahead."

It is difficult to do knockabout comedy in cold blood in a space not much larger than a council house bathroom, but I went through ten minutes of it without doing any noticeable damage. Sullivan shook his head. "I'm sorry, kid. It's not the sort of stuff I'm looking for." He wasn't ill-disposed; just regretful.

This was the end of America for me. I had hoped to be able to cable Freda some exciting news. Instead, I had done nothing; I was broke, and I couldn't possibly stay any longer living on such a slender thread of hope. When I landed at London Airport I had just four shillings left.

A few weeks of unemployment were ahead, but in this time Billy Marsh managed to secure a few television appearances, and then it was time to go to Wolverhampton as Buttons in *Cinderella*.

This engagement had been fixed long before, and I was already worrying about what would happen when the pantomime came to an end. But again, with the typical unpredictability of show business, the picture changed completely.

A search was on for a visual comedian for an Empress Hall ice show, *London Melody*, and the producer, Eve Bradfield, and others, came to Wolverhampton to run the rule over me as a candidate. That night, Eve Bradfield had made up her mind. "We'd like you," she said, "but can you skate?"

As a boy, I had hobbled twice round the Wembley Ice Rink. "Skate?" I said. "Oh, yes. I can skate."

When the contract was signed, I was concerned about this lie. It was a relief, therefore, to find that I was not expected to take to skates until the third week of rehearsals.

For a fortnight, I turned up at the Empress Hall with the cleaners at seven thirty instead of at ten o'clock, and after about four days of these secret sessions I could belt round enough to convince all but the expert that I had been born and brought up in Switzerland.

By opening night, I could even achieve an occasional leap without accident, and I certainly needed no cushion in my trouser seat.

I marvelled at the beautiful precision skating of the show's star, Belita. It was a superb show, and the first night was one of the most fantastic I have ever seen. Amid an uproar of applause, Belita took her bow.

It was Henry Hall, a co-promoter of the show, who came up to make the curtain speech and then he began to introduce celebrities among the audience. Each time, the spotlight picked out a famous person.

He named Gracie Fields, and when the spot caught her, the audience called so persuasively that she was led across the ice.

I remember feeling most surprised that she was doing this: it is unusual for stars to come forward in such circumstances because of the risk of having to do something impromptu.

Then, suddenly, I saw the spot creeping towards me with Gracie in the middle of the beam. She came through the line of artists straight towards me, and I couldn't believe it when she stopped in front of me and whispered: "It's all right, lad. You were wonderful."

She picked me up, kissed me, and there was uproar. I was dumb-struck. I was nearer to tears than I have ever been in my adult life. I stood there stupefied, taking my call.

HUGGING me, Gracie told the seven thousand people in the hall that I would become a world-famous comedian. Then she leaned over and said quietly: "I really mean it, luv."

I couldn't believe it. I had never met Gracie Fields in my life. All the way home, Freda and I talked about this wonderful gesture, and back in the caravan I stayed up late, trying to write a note of thanks. I gave up because I couldn't adequately express myself.

London Melody was launched on a seven months' record-breaking run. One night, the buzz went round the dressing-rooms that a prominent American showman was in the audience. It was Ed Sullivan.

He was on holiday in England, but next day he got in touch with Billy Marsh, said that he liked "the little English comic" in *London Melody*, and wanted me for his New York TV show. It was a single appearance for which I was paid £500.

After the show he came round to talk to the artists. He shook my hand, and in a mock-English accent said: "Jolly good show."

I could see immediately that he didn't remember me, but this was just too good to let go.

"You don't remember me, do you?" I asked.

"Sure. *London Melody*."

I shook my head.

"From where, then?"

"Do you remember anyone gate-crashing your flat and giving you an audition in the hall?"

He was baffled for a moment; then, as the memory stole back, he exclaimed: "Well, I'll be jiggered! Well, what do you know?" He laughed. "That's show business, kid."

Next day, it seemed the U.S.A. was ready to welcome me with wide-open arms. But I was impatient to be back in England, where work was building up. Even more important, Freda was expecting our first child, and we had a lot to talk about.

NEXT WEEK: My television act is praised by the Queen

OPEN TO VIEW

by JAMES LEES-MILNE

Drawn by ROWLAND HILDER

A horse and a little gentleman in velvet helped to kill the King—and avenged Sir John's death

AT Wallington Park, in Northumberland, Sir John Fenwick kept a stud, of which the most famous horse, White Sorrel, was known to every sportsman in England. And White Sorrel became the instrument of an extraordinary vengeance of Fate. . . .

The Fenwicks were loyal Jacobites. When Mary and William III took over James's throne, Sir John plotted against him. In Hyde Park one day he deliberately cocked a snook at the new Queen, shouting unprintable abuse at her.

When arrested for conspiring against William, he behaved defiantly. He was beheaded.

The King took White Sorrel. One day he was galloping the animal at high speed in the park at Hampton Court when it fell over a molehill. William was thrown and two weeks later he died. The accident is the origin of the Jacobite toast to the "little gentleman in velvet"—the mole.

Sir John Fenwick sold Wallington to Sir William Blackett, who pulled down the old castle and built the present house.

Sir William's grandson, Sir Walter, was Member of Parliament for Newcastle for more than forty years, during which period he made one speech in the House of Commons.

A small boy named Brown, whose parents were humble cottage people, used to see Sir Walter on horseback directing improvements to the grounds of Wallington.

Young Brown, inspired by this imposing vision, became a gardener and ultimately the leading landscape designer of the eighteenth century. He earned the nickname of "Capability" Brown, for he used to say to clients seeking his opinion: "I think your grounds have capabilities."

From the Blacketts, Wallington passed to the Trevelyans, who gave it to the National Trust in 1942.

In the last century, Pauline, Lady Trevelyan, made Wallington a centre for men of science, poets and painters. T. H. Huxley made biological investigations in the grounds: Algernon Swinburne read his poems on the lawn; Augustus Hare saw ghosts; John Ruskin talked and wrote, and began to decorate the central hall.

Towards the end of the last century Sir George Otto Trevelyan succeeded. He brought there the library and writing table of his uncle, the famous Lord Macaulay. His son, Professor G. M. Trevelyan, O.M., is one of the most eminent historians in England today.

How to get there: Wallington is ten miles from Morpeth. *Open:* Good Friday and then at weekends and Bank Holidays until September 30, 2 till 4.30.

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When Nations Pull Together
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Time To Kick
Jellies, Trifles, Ices
In Mother's Hands
Wearing A Little
Carved Up
Sonny's Gift
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Colder And Colder
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For ten winners of £3, see *"Bullets" Bulletin*. 25 Prizes of £2 and 1,500 "Good Shot" Awards have also been posted. (Tournament winner will be announced in JOHN BULL dated January 5.)

RULES 1. First Prize for best *Bullet* received. Others in order of merit; the test is of cleverness, aptness and originality.

2. Editor undertakes that all *Bullets* received shall be accorded careful consideration by competent adjudicators.

3. As entry-fee enclose P.O. as indicated on coupon. Fee submitted will be taken to cover *Bullets* in coupon order—any sent in excess will be disqualified. Plain-paper entries are allowed. Make P.O. payable to JOHN BULL, cross /& Co./, write name and address on back. Coupons must not be mutilated.

4. Entries accepted by post only and on condition that result of this Contest (in JOHN BULL dated January 5), also Editor's decision in any matter of dispute, are accepted as final and legally binding. Odhams' employees (and families) ineligible.

(See "Daily Herald" on Saturday, December 15, for early news of No. 2,067 result.)

POST ENTRY

"Bullets" 2,067, "John Bull," Long Acre, London, W.C.2 (Comp.).

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From all chemists, 1/2½ and 2/3

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Photograph posed by a model

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Mrs. R.E.C., a Bristol housewife (who for personal reasons does not wish her full name published) is a keen gardener—a hobby which involves a great deal of bending and kneeling. Unfortunately, for 30 years, rheumatism prevented her from enjoying her hobby to the full. Then she saw an advertisement for Fynnon Salt and decided to try a tin. Read just how appreciative she is for all Fynnon Salt has done for her. **"I must write and thank you very much for the wonderful benefit I have had from Fynnon Salt. For thirty years I suffered untold agony and misery with rheumatism, and believe I would have become a cripple as nothing seemed to relieve me, until I tried your salts. After the first fortnight's treatment of a teaspoonful in a tumbler of water every morning I felt a wonderful relief. I have been taking it for some months now and all trace of rheumatism has gone. I recommend it to everyone I meet with this distressing complaint. Thanking you again, at sixty one I am a new woman."** This letter, which can be seen at our offices, is typical of hundreds received from sufferers of all ages, expressing gratitude for the way Fynnon Salt has relieved their rheumatic pain.

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